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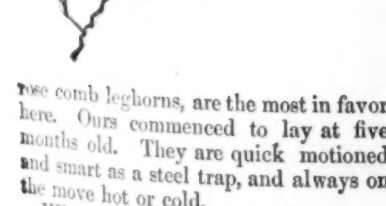


Away Down East in Maine.

EDITOR AMERICAN FARMER: I received a copy of your paper, and I like the plain way of explaining about farming. I am away Down East on a farm near the Penobscot River, where the snow has covered the ground 100 days the past Winter without a bare spot. I read the Wilson Bill talk and hard times and cheap wheat and wool topics with interest. Among the farmers here the low prices and hard times are not so much felt. Our mixed crops, with hay predominating, were fairly good last year and prices are up to the average. Although the scare and Wilson Bill has sent wool down to 18 cents, cats are 45 cents, potatoes 50 cents, hay \$14 per ton, and straw \$8.

The Wilson Bill will strike the Maine farmer hard on potatoes, especially in Aroostook County, and the lumber business in northern Maine would receive a hard blow. Then, there is the lime business near by here, and granite quarries in town, and in all other industries the outlook is not so promising as in former years. Then, there are wool, hay, and eggs, etc. If farmers could be protected just a little it would encourage, although the odds in the way of living and cheaper labor of the Province would be hard to offset here with their thousands of acres of virgin soil all ready for the asking; but farmers are hopeful. This, however, was not what I was going to write about when I commenced. I was going to tell some of the small matters in farming Down East and how different farms look here from those in Maryland and Delaware, when we, with the rest of the boys, used to follow the sea and go up the Chesapeake Bay and Delaware River some 40 years ago.

It might be supposed that poultry in the cold and snow of Maine, confined without a spot of bare ground for 100 days, would not be very profitable. But our week's record commencing March 18 is 71, 54, 50, 54, 53, 56, 42 eggs for 87 hens. For January, 796 eggs; February, 811 eggs. Price, 24 cents to 14 cents now. Our feed has been four bushels of Western wheat at 75 cents per bushel; for an extra touch, cornmeal and shorts scalded in the morning, and cats, barley, and buckwheat scattered in straw in their pens, with an occasional touch up of Bowker's bone and animal meal; plenty of pounded clam shell and gravel, with milk and water all the time. We had chickens come out March 10. The double combs, as some call the



two comb leghorns, are the most in favor here. Ours commenced to lay at five months old. They are quick motioned and smart as a steel trap, and always on the move hot or cold.

What I was going to say about farms was that in Maine anyone acquainted could about always tell by the location of the building what field and pasture belong with the farm by the lane or way leading from the barn or building. And after leaving one farm you can pick out the adjoining farm, and so on, by the line fences and highway road. The way the lots of land run here, the lots commence at the shore and run back so far and so wide; then comes No. 2 second range; No. 3 third range, and so on. In some cases here, lots are run from the

first road that was built through the woods by the first settlers; for instance, my farm is on the No. 8 third range lot from the turnpike line. On both sides of this turnpike road the lots run the same until they come to lots surveyed differently, then the jilgore and flat iron pieces were claimed by the one that was lucky enough to hold quiet possession 20 years.

So after noticing how the lots run, you could locate the farm pretty accurately by the buildings, orchard, fences, and pasture. But as seen from the Delaware and other southern places, everything seemed to be chaos or chance; there were not fences enough to get an inkling how the lots ran, or where the highway travel was, and some peach orchards were quite a distance from a house, and a hay stack was away off where nobody lived; then a big barn and a small house, then a big house and small barn, and tall trees with limbs all pointing up. Some farmers were a-haying in June, away off where there were no buildings; and a big piece of corn was away off in the woods—it would be called so here. But that was the way farms looked then. I suppose they did start in with uniform lots with first and second ranges and 100 acre lots, and some took one, two or three lots, same as here. But I could not seem to get started to trace along farms the same as in Maine. I should like to try some of the good soil and climate along the Delaware River or Chesapeake, but I should never get used to hog and hominy. That is something Down Easters don't have. I was going to say that I hear by the way of the Department of Agriculture from every County in the United States once a month. I have been crop reporter for several years for Waldo County. And with such good information from all over the country as to the coming prospect and prices, farmers can rely on future crops with almost a certainty for a fair price, by changing his crops, on the farms in Maine. Although we don't have those broad acres and great fields of wheat and corn, we study to make everything count in our short season, and come out smiling with our larder well filled with blessings, and enjoy our share of the good things of Mother Earth, according to the efforts put forth.—FREEMAN PARTRIDGE, Stockton Spring, Me.

Oregon.

EDITOR AMERICAN FARMER: Such delightful weather as we are having, makes me long to tell to my Eastern cousins the many beauties of our climate and soil. The peach, apricot, plum, and other varieties of fruit are in bloom, and the air is heavy with the perfume of many flowers.

Seeding is about done and indications are that we will have a bountiful harvest. The fruit crop will more than be double what it was last year. If the residents of some of the blizzard-stricken regions east of the Rockies could only be transported in a single night from their present abode to this section of country, they could then realize what a difference between life in this section and any other place.

A few peaches bloom here in February, but the bulk of them are only now coming into blossom.

This particular locality is the most favored spot on the Pacific Slope for several reasons. It is simply perfect as to climate; none better. Good water, wood handy and cheap, plenty of grass, and out range for stock. Perfect conditions for the proper maturing of all kinds of fruit and vegetables. Beets weighing 51 pounds have been grown here, peaches measuring eight and a half inches in circumference, prunes measuring 6 1/2 x 7 1/2 inches in circumference, and pears half as large as a man's head, and other fruit in proportion.

No irrigation necessary. Beef cattle are selling for, yearlings, \$5; two years, \$9; three years, \$13. Milch cows, from \$12 to \$20 for good ones. Butter, 25 cents; eggs, 10 cents to 30 cents.

Anyone can live here very cheaply.

There is no Government land, but land can be had from \$4.50 to \$100 per acre. Some good places back from town can be had cheap.

We are on the line of the Southern Pacific Railroad, 219 miles south of Portland and 500 miles from San Francisco, which gives us good market facilities for all of our surplus produce.

There is a vast amount of mineral wealth here that is as yet undeveloped, but a great deal of prospecting is being done, and the near future will see a regular mining boom strike this country. An immense steam hydraulic placer mining plant has been put in operation two miles below town that works well, but is now closed down for the purpose of enlarging the sluice boxes. The company have a large amount of river bar land that they will work. There are preparations being made to put in several other plants of like nature.

What we need here to develop this country is a few men of moderate means and push who are not afraid to invest their money where there is a chance to make something. The people here generally are too indolent to try anything out of the old beaten paths their forefathers trod. A living can be made too easily, and they have no ambition to get to the top of the ladder if it takes any exertion. There are plenty of chances here to make money by properly investing



ing it now; but it is not a very good country for a man with nothing to come to.

There are business chances here. An opening for a good boot and shoe maker, a cannery and fruit evaporator, hardware store, furniture store, sorghum factory, and other enterprises.

That this is a good place to live will be proven by the fact that there is not an empty house in town, and applications are made almost daily for houses to rent. We have no saloon and three churches, a 50-barrel flouring mill, etc. Sawmill two miles from town; lumber, rough, \$8 per M.

If you want a home in one of the most delightful and healthy spots on earth, come to Myrtle Creek, the Orchard City. You can always find something good to eat at the Overland Hotel.—W. F. FOGLE, Myrtle Creek, Ore.

Northeastern Kansas.

EDITOR AMERICAN FARMER: Upon averaging up weather conditions for the past Winter, we find it has been an exceptionally fine one. The saying "December as pleasant as May" would have applied to many days in that month of 1893.

Jan. 16 and 17 plows and stalk cutters were running, but the 19th brought an all-day rain, which was followed by cold, disagreeable weather, and on the 23d a considerable blizzard. The next morning brought a temperature 14 degrees below zero, which was the coldest of the Winter.

Again fine weather predominated throughout February, ushering in a very lamb-like March, though the 16 inches of frozen earth was not thawed and the ground in proper condition for farming until the 10th of the month, when stalk cutters were again started, and three days later oat sowing was in full progress, with the soil in most excellent condition. By the 20th the bulk of the acreage had been finished up in good shape, with the ground in better condition and the cultivation more thoroughly done, as a rule, than for some years past.

The weather almost immediately turned cold, culminating on the 25th in a temperature 25 degrees below the freezing point, and for several days thereafter much of the seed was encased in frozen earth.

April weather has been more favorable thus far, and upon examination to-day (April 7) I found the most forward plants just making their appearance above ground, and while there is unmistakable evidence that a small per cent of the seed has been destroyed, there are also indications of a fair stand, though a good rain would be most acceptable.

The cold snap caused much uneasiness, but it is now thought that the prospective apple crop is injured but little, if at all. This is true of wheat also, though prevailing prices have well nigh destroyed the little interest which has heretofore been taken in the production of this crop.

A good many cattle are being fed, and here again we meet discouragement.

The 25 cents per month per 100 pounds weight (not per head, as stated in our Institute report published in THE AMERICAN FARMER for March 15) advance in price, which feeders claim should occur to enable them to feed at a living profit, does not appear to be forthcoming, and some, after having fed several months, are making a "sweeping reduction" in rations, having decided to run the stock through to grass at comparatively light expense, hoping for improved market conditions later on.

And this notwithstanding the fact that whatever may be said of certain "powers that be," an overruling providence has certainly provided natural conditions favorable to the stockmen of this section at least. The Winter, mild and dry, has been one of the very best for feeding with corn averaging about 25 cents per bushel, and roughness abundant and cheap. There seems to be a quite general feeling as of a loose screw somewhere amid the vitals of the body polity.

The County is full of horses, and when occasional sales are made they are at prices that "defy competition." The crop of colts one year hence will doubtless be a comparatively light one. Those who have been breeding for quantity, with quality as a secondary consideration are disgusted and going to quit, but this will make it all the better for those who stay. It would seem to be an opportune time to sacrifice inferior breeding animals, and take a long stride in the direction of improvement in quality. In this, as in most other branches of farming or stock growing, there is still room at the top.—G. T. P., Oneida, Kan.

SOUTHWESTERN NEBRASKA.

Go West, Young Man, go West to a Healthy Place, and not be an Invalid.

EDITOR AMERICAN FARMER: I can say that I do not know of any paper published in any State which goes beyond THE AMERICAN FARMER. It gives good information from all parts of the United States, and the suggestions of the people of different methods of farming, stock raising, poultry raising, etc. In your paper of March 15, 1894, I saw some statements from J. L. Vice, President Florida State Alliance, Rye, Fla., of "A Sunny Land" in regard to the health, climate, etc.

I think that the health and climate here is similar as down there. But I suppose the Winters are more severe in the North than in the South, but the Summers are the hottest there. Our Summers being somewhat cool from the showers of rain that pass over. This being midway in the Temperate Zone, escapes the torrid winds of the Gulf and the severity of the Winters of Manitoba. The stock, horses, cattle, and sheep, can live here with very little or no feed at all. Some of the farmers have only a small stack of straw and no corn and no shelter, for we were dried out last year, 1893, and did not raise much hay, and that only in places. There it was plentiful. The people let the stock out on the prairies and on the creeks this Winter and let them run, just keeping watch so they would not wander off too far.

All we need here to raise a good crop is rain. If we could get enough rain we could raise almost any kind and variety of vegetables, grain, and fruit trees, and all Northern grown vegetation. The soil is a dark, sandy loam, light, and easy



of cultivation, rich and productive. The pores of the subsoil are found running perpendicular with the surface, which readily carries off all surface water, as well as absorbs moisture from below.

Some of the people a few years ago became disgusted at a partial failure of our crops, and went as far west as the Pacific Coast and as far east as Virginia and as far south as Oklahoma, and I am glad to say that they nearly all returned, and those that didn't return want to, and they will if they can. I don't suppose that they found a better place than here, and if they had they wouldn't have been so anxious to come back again. These people say that this

is one of the healthiest places that they found on their tour over the United States.

My father says that he resided in Elkhart County, Ind., about 14 years, and it took all he made to pay the doctor bill and expenses. Then he started with a team and covered wagon to seek a better place, and he stopped in Illinois, where he stayed nearly five years, but sickness, and rent being so high, for he had no land of his own, he did not make anything. He concluded he would try and seek a better place than there; he started again with a team and covered wagon for Red Willow County, Neb. He then moved to Dundely County, Neb. In his great tour from Indiana and Illinois to Nebraska, he did not find a more healthful climate than here.

When you travel with a team and wagon you can see everything along the roadside. We have lived in Nebraska it will be 10 years next Fall, and during that time we have not had a doctor in the house, and there are six of us at home nearly all of the time. "How is that for health?" The rest of the people are nearly the same. Good health is above all things, even money.

Many of those who die here are invalids from the sickly parts of the United States, who come out here for their health, and after they are out here awhile they improve greatly, and many of them get well.

I would advise some of those who are homeless and have to rent to come West to Dundely County and seek homes while the land can be had, as the land gets higher in price, and the best land is being taken up every year by the people who come out for their health.

In your issue of March 1, 1894, is a request from W. O. Rosecrans, of Clearlake, Kan., for all the writers of this paper to write the truth. I have the same opinion as W. O. Rosecrans in regard to the above statement. Mr. Rosecrans says that "We are apt to be too enthusiastic in the praises of our own State or County, to its great detriment." And I believe that statement, for some want their State or County to surpass others.—MARTIN A. BAUGHMAN, Max, Neb.

North Alabama.

EDITOR AMERICAN FARMER: For the benefit of any of your readers who may think of seeking homes in the South, I will, with your consent, briefly describe one of the many places here for which nature has done much and man but little.

North Alabama is a rough, mountainous country. Much of the land is too rough and rocky to ever be utilized by the farmer; but the land that can be cultivated is good, mostly level, and free from rock. The valleys are rich and well adapted to general farming, and the mountain lands cannot be excelled for fruits and vegetables.

Our climate is a compromise between that of Maine and Florida—neither too hot nor too cold for health and comfort. In some of our lowest valleys there is considerable sickness some years, but in the higher valleys, where the drainage is good, there is but little sickness, and a healthier place cannot be found on the globe than on our mountain-tops.

Society is not as good as could be desired, but is improving. Our school system is very imperfect; good schools are "few and far between," but from present indications this will not be the case many years longer. Our people are becoming aroused to the importance of education.

I am a Northern man, and am living in a mountain settlement composed largely of Northern people. We have an excellent school, with an average attendance for nine months in the year of nearly 150 scholars. Our teachers, four in number, are all from the North. Tuition \$1 per month.

Our location is about five miles north of Woodville, a little station on the Memphis & Charleston Railroad. Unimproved land can be bought near our school at from \$5 to \$20 per acre. Our elevation above the valley is nearly 1,000 feet, and 2,000 feet above sea level.

North Alabama and parts of several adjoining States is rich in minerals, and in the near future this will surely become a great manufacturing region, unless the free traders become too strong.

In conclusion, I will say that I am one of the "old boys" that were the blue during the "late unpleasantness," and that I will answer letters of inquiry from any of my old comrades who inquire close stamps. I would make the same offer to all home seekers, but fear that by so doing I would get a bigger job on my hands than I could manage.—J. O. CLARK, Co. D, 47th Ill., Woodville, Ala.

With good care and cultivation nearly any kind of nut trees can be grown from the seed.

THE SCALE INSECT.

A New and Fearful Enemy to the Eastern Fruit Grower.

(Emergency Bulletin, Department of Agriculture.)

ACCORDING to the most trustworthy authority, the San Jose Scale was first brought to California from Chile on trees received by Mr. James Lick, about

1870. Fruit shippers first noticed it in 1873 at San Jose, from which fact the popular name of the insect is derived. It spread rapidly until 1880, when Prof. J. H. Comstock, formerly Entomologist to this Department, collected specimens in Santa Clara County, and in the annual report of the Department for that year described it scientifically as *Aspidiotus perniciosus*. The specific name was given to it for the reason that Prof. Comstock considered it to be the most pernicious scale insect known in this country. It swarmed in countless numbers upon the trees in certain orchards, and infested all the deciduous fruits grown in California, except the apricot and Black Tartarian cherry. In the course of 12 years the insect spread through all the fruit growing regions of California, through Oregon, and into the State of Washington. It is known as the worst insect pest of deciduous fruit trees on the Pacific Coast, and has caused great pecuniary loss. Many crops of fruit have been ruined, and thousands of trees have been killed.

OCCURRENCES OF THE SCALE INSECT OF THE ROCKY MOUNTAINS.

In 1892 the insect was found in the vicinity of Los Cruces, N. M., upon apple, pear, plum, peach, quince, and rose. It had been brought into New Mexico upon young trees from California. In the Summer of 1893 specimens of pears affected by the insect were received at the Department from Charlottesville, Va., and an investigation showed that a small orchard there was badly infested, the insect having probably been introduced upon nursery stock purchased in the East about 1890.

During March, 1894, specimens were received from the Florida State Agricultural Experiment Station, with the statement that they had been sent in by correspondents at De Funiak Springs, Fla. They are said to occur throughout a 30-acre orchard, and to have been imported from California about 1890. During the same months specimens were brought to this office from Riverside, Charles County, Md., and immediate examination by an assistant in the Division, who was sent to the spot, showed that more than 1,000 peach and apple trees are infested in this locality. Specimens received showed a degree of infestation which we have never before seen. The owner stated that the scales were first noticed three years ago, and expressed himself as of the opinion that the insect was brought into this orchard on nursery stock purchased from a New Jersey dealer.

PROBABILITIES OF ITS OCCURRENCE ELSEWHERE.

If, as we have little doubt, the insect was first introduced into the Charlottesville and Riverside orchards upon nursery stock purchased from Eastern dealers between 1887 and 1890, the probabilities are strong that other stock purchased from the same dealers at about the same time was also infested. It is not necessary that the stock purchased from these Eastern dealers should itself have come from California, since Eastern stock in the nursery may have become infested from California stock in the immediate neighborhood. The scale, therefore, without much doubt, exists in other parts of the East, and measures have been taken by the Department to ascertain all the points at which it occurs. The importance of such knowledge can hardly be exaggerated. The insect spreads rapidly, for a scale insect, and is the most dangerous scale known.

It is inconspicuous, and will hardly be noticed by the average fruit grower until it has become very abundant—so much so, in fact, as to practically incrust the bark. Remaining unnoticed in any one locality, it is a constant and immediate menace to the fruit growing interests for many miles around. The constant portage of nursery stock all through the fruit growing States of the East, from south to north and from north to south, from east to west and from west to east, affords the most favorable opportunities for the spread of the insect, and there exist at present absolutely no restrictions by which this spread can be limited.

The San Jose Scale belongs to the same group of scale insects—the Dias-

pine, or armored scales—to which the common and well-known Oyster-shell Bark louse of the apple belongs. It differs from this species, and in fact from all other Eastern species found upon deciduous fruit trees, in that the scale is perfectly round, or at most very slightly elongated or irregular. It is flat, pressed close to the bark, resembles the bark of the twigs in color, and when fully grown is about one-eighth of an inch in diameter. At or near the middle of each scale is a small, round, slightly elongated black point; or this point may sometimes appear yellowish. The full-grown scale, enlarged, is shown at Fig. 16.



Fig. 1.—San Jose Scale: a, pear, moderately infested—natural size; b, female scale—enlarged. (Original.)

When occurring upon the bark of the twigs or leaves and in large numbers, the scales lie close to each other, frequently overlapping, and are at such times difficult to distinguish without a magnifying glass. The general appearance which they present is of a grayish, very slightly roughened scurfy deposit. (See Fig. 2.)

The natural rich reddish color of the limbs of the peach and apple is quite obscured when these trees are thickly infested, and they have then every appearance of being coated with lime or ashes. When the scales are crushed by scraping, a yellowish oily liquid will appear, resulting from the crushing of the soft yellow insects beneath the scales, and this will at once indicate to one who is not familiar with their appearance the existence of healthy living scales on the trees.



Fig. 2.—San Jose Scale: Apple branch, with scales in situ—natural size; enlarged scales above, at left. (Original.)

They are easily scraped off with the finger nail, and the bark beneath them will be seen to be darker in color. The natural color of the bark is also somewhat changed, as will be seen by comparing the places from which the scales have been removed with the spots upon which the scales do not occur. The outlines of the removed scales will be noticed upon the bark, and the circumference is frequently changed in color, becoming somewhat purplish. Where the scales do not occur so thickly they are more perceptible, and upon young, reddish twigs the contrast is quite noticeable, as the scales there appear light gray. The younger and smaller scales are darker in color than the older and larger ones, and sometimes appear quite black, while the still younger ones are yellowish.

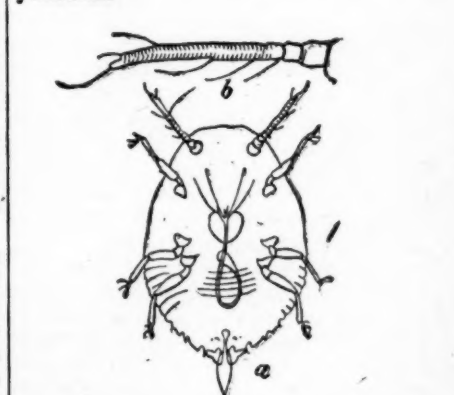


Fig. 3.—San Jose Scale: a, young larva—greatly enlarged; b, antenna of same—still more enlarged. (Original.)

During Winter the insect is to be found in the half-grown or nearly full-grown condition. The young begin to hatch and to crawl from under the female scales shortly after the trees leaf out, and from this time through the Summer there is a constant succession of

(Continued on eighth page.)



Stock

Fattening Calves.

EDITOR AMERICAN FARMER: Will you please tell me how to raise calves with oil meal, how to feed it, and what to feed with it?

What is the difference between the "old process" and the "new process" meal?—GEORGE CAREY, East Arlington, Vt.

Careful experiments made at the Iowa and Wisconsin stations indicate that the best results were obtained by feeding calves 10 pounds of skim milk one and one-half pounds of flaxseed meal per day. Somewhat greater gains were made by feeding whole milk, but not enough to pay for the difference between the values of whole and skim-milk. Estimating the whole milk at 87½ cents, and the skim at 15 cents per 100 pounds, and the flaxseed meal at 34 cents a pound, the food cost of the gain in flesh was 7.6 cents per pound for the whole-milk lot, and 5 cents per pound for the skim lot. Short-horns and Holsteins were tried, the Holsteins making the larger gain. At the Wisconsin Station calves fed on a ration of skim-milk, linseed meal and ground oats averaged a gain of one pound for every 13 pounds of milk, one-half pound of meal, and one-third pound of oats. Skim-milk which had been curdled gave nearly as good results as that which had not.

In the "old process" the oil is squeezed out of the grain by hydraulic presses, and in the "new process" it is extracted by benzine—EDITOR AMERICAN FARMER.

A West Virginia Wool Grower.

EDITOR AMERICAN FARMER: Your live and magnificent Protectionist paper is a very welcome visitor in this West Virginia home. I only wish it came twice a week instead of twice a month. Your reasonings on the tariff question are superb as well as instructive. I look upon Mr. Wm. Munnikhuysen's article as the weakest of weak arguments; the whole fabrication is a mere theory minus the least argument; take his first argument on wool, when he says a child first born is wrapped in wool and buried in wool, and he don't want it to be taxed. I think if Mr. Munnikhuysen had visited the Australia Building at the World's Fair and examined the quality of their wool and listened to their arguments and heard them say, as many did, that they did not want a better fortune offered them than to supply the American market with wool at 12½ cents a pound, he would have been able to draw some conclusions as to the difference between a protective tariff and *ad valorem* duty, and would be one of the last men to say that a protective tariff is a tax. It's as clear to me as sunshine that when I sell 100 pounds of wool for \$25 that I have a better profit than I would have if I sold it for \$12.50. It is equally evident that when a suit of clothes only weighs six pounds, hence, six 11's are 66; that suit costs me \$16; then will I not from my sale of 100 pounds of wool at \$25 have \$9 left? Certainly. Sixteen and

SHEEP AND WOOL.

Shearings.

It seems that in South Dakota, while many are selling their flocks and quitting the business, these same flocks, especially the ewes, are being transferred to other hands—to younger men with more faith in the future of sheep, who will become the future flockmen of the State.

Bad as the outlook for flocks is in the eyes of old, experienced flockmasters, there is to be found a class of young men who believe they see their way clear to embark in the business of keeping flocks. This is a most hopeful indication of the perpetuity of the sheep industry. It may be a matter of interest to know how these young men figure on a profit at present prices and prospects. In all probability the young men have a faith that reaches beyond the vale into the future.

The Montana wool growers are adjusting rates of labor to meet the possible free wool law. At a recent convention of wool growers it was agreed that flockmasters should pay only six cents a head with board, or seven cents where shearers boarded themselves. The wages of herders was partly settled at \$25 to \$40 per month, though a few insisted that further reduction would have to be made of from \$5 to \$10 per month before Montana could successfully compete with Texas, where Mexicans work for very low wages, and their living expenses are only a trifle, comparatively.

Geo. W. Franklin, of Atlantic, Iowa, thinks bran will answer for roots in the wintering of sheep, and says: "We have been experimenting to ascertain whether we could gain as much on a ration of which the principal ingredient is bran as one consisting partly of roots. The results of our investigations are for the most part satisfactory." We should be glad to have the experience of such of our readers who have been feeling their way along these lines. It has been our opinion for years that bran did not receive the consideration it deserved as component part of the sheep's ration.

THE AMERICAN FARMER says: "Truly, flocks and flockmen are being tried as by fire in this country, but the ordeal will have a beneficial effect upon the future character of the flocks and the economics of the flock raisers."

Judging from the tone of the trade journals of England, the manufacturers of that country are deeply interested in the passage of the Wilson Bill. They want the Wilson law, if it should be so, to go into effect at once, and turn loose the immense stocks now in the custom houses upon the American markets.

Sometimes we are very much discouraged about the ups-and-downs and ins-and-outs of sheep husbandry in this country. But the facts show that there has been a steady development of the industry, that each decade finds the country in possession of better sheep, more and better wool per head, healthier flocks, greater usefulness, and in every way better suited to the wants of the farmers. Nor is this all; the farmers themselves have steadily gained in intelligence and appreciation of flocks as a factor of fertility to the soil and of profit to general agriculture and better farming. It is safe to predict that the next decade will show still more marked gains to the sheep industry of this country.

THE AMERICAN FARMER congratulates every sheepman who has adopted more care in handling his flock, as well as the thrifty, provident farmer who long since discovered that it was strictly economic to furnish shelters warm and commodious that can be regulated to the comfort and security of his sheep. It may be all right enough to allow the animals to find natural shelters where such are to be found. It will do to trust to good luck (?) in the South, where Winter has few, if any, terrors for the stockman; but in the North, where Winter is a reality, and the exception not the rule, it is certainly the part of humanity, at least, to make even sheep comfortable. By some very successful sheep raisers it is claimed that shelters make the stock tender; that exposure gives vigorous health and tends to perpetuate hardiness. This may all be, but heat has to be secured either by feed or boards and shingles, and there can be no question of which is the cheapest way of getting it. Human civilization has not a question of the economy of warm houses when the storms of Winter come. As well advocate the theory that men and women should live out of doors to get hardiness. The first consideration of the stockman is constitution; but that very important function need not be expended in trying to keep warm. Let it be the test of constitution to develop the most and best meat in the least time and at the least expense of feed; to grow the most and best wool; to reproduce their kind uniformly and true to type. That is enough for constitution.

Lung Worms in Sheep.

This disease is common in a flock that uses the water from a pond or that feeds on wet land. The symptoms of the disease are swelling under the throat, due to poorness of the blood, by reason of the weakening effect of the parasites; a dry cough, and thin, white skin. The skin becomes bare of wool in places, and the sheep have a drawn-up face that is expressive of suffering and misery. If the flock has not been too much weakened, the disease may be checked by the use of continued daily doses of half an ounce of turpentine given with an equal quantity of olive or lard oil. The turpentine must be continued for a month until the system is saturated by it, and it is the fumes of it that reach the worms in the lungs and air tubes and so kill them. At the same time a tonic should be given, such as half a teaspoonful of a mixture

of equal parts of sulphate of iron and gentian root finely ground. This may be given in a little meal or bran moistened. It is found that sheep that are kept in strong, vigorous vitality are far less liable, or perhaps susceptible, to lung-worm attacks. It is usually the lambs that succumb to lung worms, and if lambs are daily fed a little dry sweet grain feed, they rarely are attacked or yield to such attacks.

It is well known that healthy pastures may become unhealthy when affected sheep are placed upon them, or the manure from diseased sheep are scattered over them.

Too little is known of the life history of this worm to say whether the entire existence is spent in the sheep or whether there is a variety of stages through which it must pass before it enters the sheep. It is quite enough for the flock owner to keep the sheep in strong condition and keep the pastures and water supplies above suspicion.

A Michigan Sheep Letter Worth Reading.

A. H. Foster, Allegan, Mich., in regard to sheep, says: They are thriving well, and do not seem to be any the worse for the looked-for free wool. My sheep are in better shape than ever before. I do not expect many lambs before about March 10. Four ewes have run by their sides seven fine lambs. I expect the flock will hold out this well or better right through to the last. I have some very flattering letters from customers of this year. I am giving my personal attention this Winter, and they seem to appreciate it. Yesterday I was out trying to find some good grade ewes for a customer in Iowa. After looking around and finding nothing but stunted things, my sheep looked bigger and better than ever before when I came home. I find a great many more people who want to buy sheep and cannot get the money than I do those who complain that free wool is keeping them out of the market. I give a letter from what seems to be a first-class farmer of Iowa, who no doubt has a fine farm and is considered well to do. He writes Feb. 21, 1894:

DEAR SIR: I am sorry to inform you that, owing to financial reasons, I am obliged to give up ordering any sheep of you this season. You will be no worse disappointed than I am.

Yours truly,

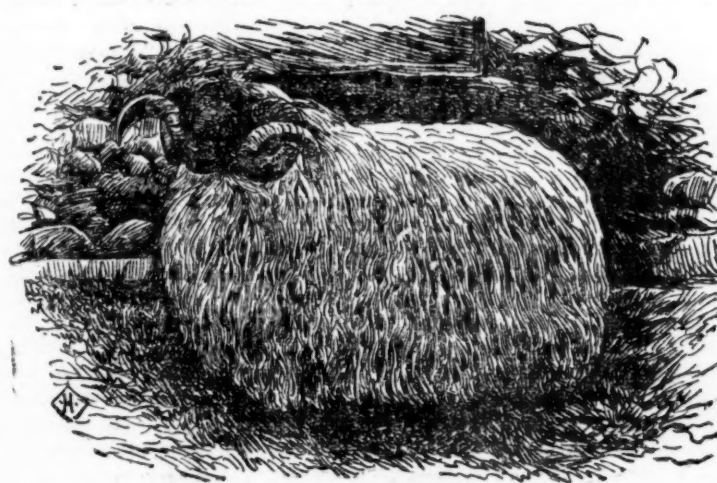
This is a fair sample of a great many of them. While out yesterday I met a rather well-to-do farmer with a cord of green wood on his wagon coming to town, a distance of about 11 or 12 miles. Many of them are earning money just as hard this Winter, which goes to show that they did not make my last year. I look and hope for better times the coming year.

When I see the miserably poor sheep that many farmers are keeping, and the still more miserable manner of feeding them, I little wonder that they are cheap and that farmers are hard up. The time has come when margins are small on the very best, and we must insist on quality handled with skill if we are to make money. I think you are right; that to succeed we must have more specific information, more appreciation of practical value, and better methods, and then execute them with brains and skill. When this is done the agricultural sheep raiser will be one of the envied classes of the world. It requires as much brains to be a first-class farmer as for any profession I know of.

"WAVERLEY."

A Specimen Ram of the Scotch Black Faces.

Ayrshire is a hilly, monotonous country on the southwest coast of Scotland, with some good soil of light sandy loam in the valleys, and much that is from medium to very poor on the hillsides and moors. The people there are,



BLACKFACED RAM "WAVERLEY."

however, a very intelligent, progressive class of farmers, and have developed a superior breed of dairy cattle, which takes its name from the country. They have a great partiality for a breed of black-faced sheep, with which they have great success. The picture below is that of a noted ram "Waverley," one of the finest specimens to be found in the Shire.

Give the Merino Ewe Due Credits. What is the matter with the Merino sheep?

The breeders of English mutton breeds are all pointing to the Merino ewe as making a satisfactory cross with their rams. Of course they do; the Merino makes a capital partner whenever and wherever it is tried; and once in a while a man finds out that it makes a most meritorious and sufficient whole. A friend at elbow whispers if it were not for the strong vitality, useful characteristics, including the rustling and flocking qualities of the Merino ewe, there would be little use of importing any other sheep into this country. It is well known that the Merino blood improves every sheep under the sun that it is crossed with; that is its record, and every American sheep farmer recognizes this fact.

It is grateful to have the Merino sheep recognized by all classes of sheep breeders, but we insist upon their doing so complacently and gracefully rather than disparagingly as a second consideration.

Says Sheep do Not Pay.

R. J. Mo., has decided to quit the sheep business, and gives his reasons for so doing as follows: "My flock of sheep don't pay me. I like sheep. They look pretty on a farm. The neighbors all keep sheep. Maybe I have not managed them as well as I might. Last Winter during the icy weather the dogs got among them one night and killed a lot of them, and so worried the flock that nearly one-half of the ewes miscarried, and some of the lambs died in a week or two after they came. The pastures were very bad last Spring, and the sheep did not good until the drouth set in, when I thought they were in fine condition, but the lambs began to die shortly after weaning of some queer disease, and before I knew it they nearly all died. The few left are a mighty puny lot. Presume they will all be dead before grass comes. I lost a few sheep, too, by a lot of young mules that ran loose in the stable with the sheep. Please tell me what you would advise me to do?"

Remarks: To be candid with you, our advice would be to quit the business. All the losses, according to your own statements, were unnecessary. You could have avoided every one of them by better judgment and care. While we admit the killing of sheep by dogs is a difficult question to treat, we do not think there is a single excuse for having sheep killed by dogs at night, nor for any other time, for that matter. Sheep yards, where all sheep should be at night, or in the sheds, should be inclosed by a dog-proof fence. Sheep pastures, too, can be dog proof at a very little extra expense. This is the most practical way of preventing the destruction of sheep by dogs. The watchful, cautious, and resolute sheep raiser can usually forecast the intentions of the prowling cur and quickly get the brute before he gets the sheep. This is the second best way of protecting a flock from dogs. The man that will not adopt the above precautions must either keep the sheep in sight or hearing of bells, lose sheep, or go out of the business.

The lambs died after weaning by reason of the bad character of the pastures last June when it rained every day and the grass was rank and deadly. At such times the sheep should be confined to a small pasture, just enough land for the sheep to keep the grass closely cropped. Where this extra fencing cannot be done the mowing machine should be used, so the sun and air could reach the ground and dry the feed.

As to mules killing the sheep, there is not one excuse for it. The farmer that loses sheep that way don't deserve any pity; he ought to quit the business; he don't know anything and never will. When the average sheepman shall use every possible means within his power to keep his sheep healthy and safe from parasites—dogs, hogs, mules, and cow's horns included—when all the possible and common leaks are avoided, flocks will be found to be profitable. These losses are expensive.

Misleading.

"The Merino shepherd who has his lambs dropped before the supply of grass is abundant will, despite all his best endeavors, have a certain number of ewes that disown their lambs, or have an insufficient supply of milk for them. Their lambs will have to be helped—at least until grass grows—with a few pulls from a feeder twice a day, or such a matter."

Remarks: The above paragraph will do for a man interested in selling "lamb feeders," but not from a great sheep breeding and wool growing journal that has better information of breeds and

A WONDERFUL COMBINATION

A New Stem-Wind and Stem-Set Watch, a Souvenir Chain, and Our Paper

FOR ONLY \$1.80

The Best Watch Ever Before Made for Five Times the Money, and the Best All-Round Farm Paper in America

The publishers of THE AMERICAN FARMER, ever alert for the best interests of its subscribers, have now surpassed all previous achievements in the way of a premium. It is a watch which is a stem-wind and a stem-set in solid gold. The chain, which is given without extra cost, is a curiosity. It is a souvenir made of a combination of links and medals, as shown in the cut. Special devices were made for these medals to secure faithful reproductions of the portraits of Washington, Columbus, Lincoln, Grant, and Sherman. This chain, really for which no charge is made, is an interesting and valuable souvenir of American history.



This watch and chain are not sold without the paper, but will be sent, postpaid, to any address in the United States, delivery guaranteed, with THE AMERICAN FARMER for one year, postpaid, for only \$1.80.

The watch and chain will be sent free of charge, postpaid, to any one who will send a club of only six yearly subscribers to THE AMERICAN FARMER at 50 cents each. The cuts above give an accurate representation of the watch and the chain. Go to work at once if you want a good watch. Remember, this is no toy, but an accurate timepiece, good enough for any one to carry. The first club raiser in any community has the easiest work in securing names, as a matter of course; so get a watch and chain quickly, and begin the very day you get the paper containing this offer. Your neighbors will be in the field if you are not. Send in the names as fast as you get them, and they will be placed to your credit. If you get enough for two or three clubs, we will send the additional watches and chains, which you can sell and make good wages.

Address at once THE AMERICAN FARMER, Washington, D. C.

Wool in Canada.

EDITOR AMERICAN FARMER: While reading the article on fourth page of April 15 issue, entitled "Every Tub on Its Own Bottom," in the letter of D. B. Borden, he uses the argument that raw wool in Canada under free trade is higher than in this country under a protective tariff. The untruthfulness of the statement, while perhaps made in good faith, calls for a statement from me.

I sold my Lincoln wool, unwashed, in June, 1892, for 20 cents per pound. In October I was in Canada to purchase Lincolns, and asked four breeders what they sold their wool for, which was washed, and each replied the same, 16 cents. Another large breeder sold his, unwashed, Dec. 1, 1892, when it was firmer than at any previous time that year, for 10 cents per pound. His statement was made personally at Lansing, Dec. 19, 1892.

My Democratic neighbors had talked of wool bringing as much in Canada under free trade as here under protection till I almost believed it; but a visit to the Dominion dispelled their arguments.

I imported a nice flock of Lincolns, whose wool, washed, was sold for 16 cents in 1892, and sold their wool early in 1893, unwashed, for 20 cents. I am prepared to prove the truth of this by all the evidence required. One thing is certain, if wool goes on the free list the woolmen of this country will bury those who put it there, by their votes, so deep they will not hear Gabriel's trumpet at the last day. Yours for protection—H. A. DANIELS, Elva, Mich.

Seneca County, Ohio.

EDITOR AMERICAN FARMER: The freezing weather seems to be past for this time. Wheat damaged at least 33½ per cent. There has been a good deal of the clover killed, also, and some of this year's sowing is lost. Stock of all kinds selling low, except fat hogs. I never knew buyers to offer such mean prices for fat sheep this time of year—24 cents with wool on. But the market is looking better past few days.—SCOTT HOLTZ, Watson, O.

Advantages of Newspapers.

Mrs. M. Z. Olin, Frentport, Mich., thinks nothing brings us so near together as papers. She wrote to THE AMERICAN FARMER and did not think of anyone in her old home seeing her article, but a neighbor put it into her mother's hands the first thing.

AS MOUNTAIN PEAK AND PRIMEVAL FOREST

are reflected in glassy lake, so are earth's fairest scenes mirrored in the splendid series SIGHTS AND SCENES OF THE WORLD.

320 superb art reproductions, now being exclusively offered by this paper to its readers and their friends. These views, with their accompanying descriptions, form an extremely valuable educational adjunct, and should find a place in every home. This object may be accomplished through the medium of this paper's great distribution, now going on.

"Sights and Scenes" Binder is now ready. Price, by mail, 75 cents. In every issue of THE AMERICAN FARMER a "Sights and Scenes" Coupon will appear. Mail Coupon and 10 cents—cash or stamps—to "Coupon Department, THE AMERICAN FARMER." Be particular to state the number of the part desired; (2) your full name and address; (3) inclose the necessary coupon and 10 cents with each coupon.

SPECIAL NOTICE.

We can now furnish the entire 20 parts of Sights and Scenes, from Number 1 to 20. Any of our readers who have been waiting to get the entire set at one time can now do so by cutting out this coupon, putting on it your name and address, and sending it to us with \$2. Any of our readers who may desire to order any of the Parts from No. 7 to No. 20, can cut out this coupon, indicating thereon the numbers wanted, and send it with 10 cents for each part wanted. Coupon for Part 10 will be found on page 4 as usual.

SIGHTS AND SCENES OF THE WORLD. SPECIAL COUPON.

To the Coupon Department, American Farmer.

I inclose _____, for which send by mail Parts

Sights and Scenes of the World, to

SUBSCRIPTION HERD STAKES.

Revision of the Conditions of the Rhode Island Association.

Yielding to a generally-expressed wish of cattlemen, the Rhode Island State Fair Association has made the following revised conditions for the guaranteed subscription herd stakes:

The amount of each stake, \$1,000, to be guaranteed by the Rhode Island State Fair Association, and will be divided into four premiums as follows: 1st, \$500; 2d, \$250; 3d, \$150; 4th, \$100. Entrance fee five per cent. First payment June 4, \$10; Second payment July 23, \$15; Final payment Sept. 3, \$25, when subscribers must give names and registered numbers of each member of their herd. Five per cent. additional deducted from the premium winners. Open to the world. Stakes close Monday, June 4, at 11 p. m. All entries must be registered or eligible for registration in the herd book of the breed to which they belong, and must be the bona-fide property of nominator.

Six herds in each class must enter to fill. A herd to consist of seven animals, namely—one bull, two years old or over; three cows, three years old or over; one heifer, two years old and under three; one heifer, one year old and under two; one calf, male or female, under one year old.

The ages of animals comprising competing herds will be reckoned from Sept. 3 of the year calving, thus corresponding with our specified date to name and make final payment of entries.

Subscribers held only for the amounts paid in, and should classes not fill money subscribed will be immediately refunded. Herds must be on the grounds Sept. 18, or the right to compete will be forfeited.

Carriage Catalogue.

The Alliance Carriage Co., of Cincinnati, O., will send their complete catalogue of vehicles and harness, showing over 100 different styles of vehicles, from a road cart or farm wagon to the finest pleasure carriage one's taste can suggest. Also an endless variety of harness running in prices from \$5.00 upwards. If you have not had this catalogue send for it now—it's free. Ask for catalogue "D."

Established - - - 1819.

75TH YEAR.

THE AMERICAN FARMER.

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Our readers will oblige us, when writing to parties advertising in this paper, if they will state that they saw the advertisement in THE AMERICAN FARMER. This is little trouble and costs nothing, but it helps us, and is information wanted by the advertiser.

When sending in subscriptions specify whether for General or Southern Editions. Unless specially directed for the Southern Edition, all subscriptions will be entered for the General Edition.

TO ALL TO WHOM THIS PAPER SHALL COME.

Greeting: This paper is sent you that you may have an opportunity to see it and examine it, with a view to subscribing. We ask you to compare its contents, objects, and price with those of other papers, and see if you do not come to the conclusion that you ought to have it; that you cannot afford to do without it. We can assure you that if you send in your name for one year that you will find it one of the most profitable investments that you can make. We hope to make and keep it so interesting that you will think that every number more than repays you for the subscription price for a year. Please call your neighbor's attention to the paper.

OUR CLUBBING LIST.

The American Farmer will be sent in Connection With Any Other Paper or Magazine.

We will send THE AMERICAN FARMER and any other paper or magazine in the country at a reduced rate for the two.

The following is a partial list of the periodicals that we club with:

Name of Periodical.	Regular Price.	With the American Farmer.
Penny Post	\$1.00	\$1.25
London Mail and Express	1.00	1.25
Worthington's Magazine	2.50	2.50
Home	50	50
London Standard	1.00	1.25
The National Tribune	1.00	1.25
London Garden	1.00	1.25
London Standard	3.00	3.00
London Standard	50	50

The New York World, organ of the Importers and the foreign merchants, says:

As the total production of sugar in the United States in 1890 was only 227,000 tons, it would be cheaper to buy all of it and dump it into the Gulf of Mexico than to put a protective tax on imported sugar because of it.

Once on the free list always on the free list!

OUR NEW CLUB OFFERS.

We have arranged to club with the Weekly Witness of New York. Its price is \$1 a year when taken alone. The Witness is a 16 page weekly paper and among its contributors

Rev. Josiah Strong, D. D.; Rev. John Hall, D. D.; L. L. D.; Rev. Robert S. MacArthur, D. D.; Rev. Theo. L. Cuyler, D. D.; Rev. M. C. Lockwood, D. D., of Cincinnati; Sunday school sermon by Dr. Talmage; Sunday school lesson by Dr. George F. Pentecost, etc.

It is one of the strongest and most popular family newspapers published.

The American Farmer will be sent to any address for one year postpaid for the small sum of \$1.20 for both publications.

Sabbath Reading is a 16 page weekly paper, non-political, non-sectarian; no secular news.

Determined not to know anything among you save Jesus Christ. Good, not godly. Religious, not dull. Contains Sunday school lessons; Christian Endeavor topics; Sermons; Stories; Live Reports of City Missions. Sixteen pages filled with the best Christian thought of the age. Sabbath Reading alone costs 50 cents a year, but we have made an arrangement with its publishers so that we can send both it and THE AMERICAN FARMER, postpaid, to any address for one year for only 60 cents.

At Home and Abroad, the leading monthly publication of New York City, will be sent one year, with THE AMERICAN FARMER, for \$1.10, both papers postpaid. Every number of At Home and Abroad contains a collection of vocal and instrumental music that could not be bought separately in sheet form in the stores for less than 70 cents. Remember, that by our arrangement 12 numbers of this publication and THE AMERICAN FARMER for a year for only \$1.10.

These offers are open to all subscribers in connection with THE AMERICAN FARMER. Neither the Weekly Witness, Sabbath Reading, nor At Home and Abroad can be furnished by us without a subscription to THE AMERICAN FARMER for one year accompanying the order.

SIGHTS AND SCENES OF THE WORLD.

Part 10. Number 10.

NUMBERS CHANGED EVERY ISSUE.

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Five Two-Cent Postage Stamps,

to the Coupon Department of THE AMERICAN FARMER, and you will receive the elegant portfolio of photographs as advertised. See our advertisement on another page.

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CUT THIS OUT.

OUR GRAIN COMPETITORS.

The following comparison of the imports of wheat into Great Britain for the first three months of this year, with those for the same period of last year, show how strong is the competition we are meeting with from Russia, Argentina, and other countries:

Imports of Wheat.	1893.	1894.
United States.	6,025,247	10,426,904
Other countries.	8,196,150	6,399,324
Total from United States.	6,025,247	10,426,904
Other countries.	8,196,150	6,399,324
Chile.	785,000	228,000
Argentina.	1,300,000	455,000
British India.	6,610,000	1,200,000
Russia.	8,425,700	6,399,324
Minor countries.	897,230	545,000
Total from other countries.	12,338,057	5,574,324
Grand total.	21,363,005	22,310,528

This shows that our loss was 7,516,780 bushels, of which Russia gained 2,802,996 bushels; India, 2,302,108 bushels; Argentina, 750,165 bushels; Chile, 556,724 bushels, and other countries, 393,330 bushels.

Last year the United States exported 67,000,000 bushels of wheat; Russia, 90,000,000 bushels; Hungary, 44,000,000; India, 41,000,000, and Argentina 27,500,000 bushels.

The moral of this is that we must cease relying on the foreign market for our grain, and devote more of our land and energy to raising the \$300,000,000 worth of agricultural products which we buy abroad.

We must simply make up our minds that Russia and Argentina will glut the wheat markets of the world in the coming years. It is about the only money crop the peoples of those countries can raise, and they will sell it for whatever they can get for it. Russia has built immense lines of railways for strategic purposes, which will carry the wheat to the seaboard at low rates, or for nothing if necessary.

The sooner we recognize these stern facts, and turn our attention to other lines than raising wheat for exportation, the better for all concerned.

THE SUGAR QUESTION.

We simply must raise our own sugar.

The American people are probably today the greatest sugar-eaters in the world.

In 1892 they ate 67.46 pounds of sugar per head. The consumption had increased over 13 pounds per head in three years, having been 54.23 pounds per capita in 1889. Then our consumption was far ahead of that of any other people in the world except England. The following table shows the consumption per head per annum in several countries in 1892:

Countries.	Pounds.
Austria.	22.56
France.	18.05
Germany.	10.34
Holland.	20.28
Belgium.	21.39
Denmark.	46.63
Sweden and Norway.	24.14
Italy.	11.96
Spain.	7.59
Turkey.	9.33
United States.	67.46

For the fiscal ended June 30, 1893, we imported the enormous amount of 3,731,219,367 pounds of sugar, valued at \$114,959,870.12; and 15,490,757 gallons of molasses, valued at \$1,992,352.43; or a grand total of \$116,952,222.55 in gold that went out of the country for sweets. Adding freights, commissions, undervaluations, etc., the whole amount would probably reach \$150,000,000, or nearly \$2.50 for every man, woman, and child between the Atlantic and the Pacific.

We sent \$63,000,000 to Cuba last year for sugar and molasses, \$12,000,000 for tobacco, and bought other things, raising the total purchases to \$79,000,000 in round numbers. In return we sold her but \$24,000,000 worth of goods, leaving her ahead of us at the end of the year over \$55,000,000.

We bought \$10,000,000 worth of sugar and molasses from the British West Indies, and other articles raising the total up to \$16,628,000, and sold them back but \$8,000,000 worth, leaving them over \$8,000,000 ahead of us at the end of the year. We bought \$3,000,000 of sugar from Brazil, \$57,000,000 worth of coffee, and other products to swell the total up to over \$76,000,000. She bought of us only \$12,388,124 worth, so that she was ahead of us in the game over \$64,000,000. We bought \$5,000,000 worth of sugar from British Guinea, and sold her \$2,000,000 of products, leaving her \$3,000,000 ahead of us.

So it goes everywhere. Sugar drains away our gold by millions to enrich people who buy at the most very little of us, and only those things on which we make slender profits.

It is clear to every thinking man that we cannot long go on doing this without stripping the country of its money and inviting bankruptcy.

We are the only country in the world to-day except England that does not raise her own sugar under her own flag.

England can afford to buy her sugar abroad, because she pays for it in manufactures upon which her people make a big profit.

Other European countries have managed so wisely that the cane sugar is replaced by that manufactured from beets raised by their own farmers. Of the 6,500,000 tons of sugar consumed by the world last year more than 3,500,000 tons were made from beets raised in the countries where the sugar was consumed.

It will be inexcusable folly for us not to follow their example.

Let us pay our own farmers this \$150,000,000 a year, which will mean greater prosperity to them than quadrupling our exports of wheat and meat.

The men in charge of the tariff bill assure the country that it will certainly pass, but they are very reticent as to what shape it will be in when it does. Their discordance of views was very adroitly exposed last week by Senator Aldrich offering to agree to take a vote upon the measure at 3 o'clock that afternoon. This produced quite a flurry among those in charge of the measure, as they had been pretending to the country that the delay in the passage of the bill was due to the procrastinating policy of its opponents. They hurriedly set up Lindsey, of Kentucky, to talk while they could consult and arrange a plan by which they could assume to be ready for a vote, but gain time to finish a compromise bill that would command enough votes to pass it. We are sorry to say that all the compromises that have been hinted at relate to protection to manufacturers, and none to better provisions for agricultural products. Except in regard to sugar, the bill appears to be as obnoxious to farmers as when it came from the House.

AGAIN, we earnestly warn farmers not to allow themselves to be confused by the cheap-clothing clamor. The duties on wool play little, if any, part in the cost of a suit of clothes. If every cent of the duties on wool were paid by the consumer, it would at most make but a few cents difference in the cost. The protection is all on the labor of making, to save the workmen from competition with the "sweat shops" of England. Whether this is right or not, we will not discuss. That is for the tailors and factory operatives to consider. We sincerely protest against a duty imposed for their benefit being charged up against wool growers. As we have said before, "Let every tub stand on its own bottom." We shall not help fight their battles while they turn upon and rend us.

The proposal of Kaiser William to make the peanut a liberal portion of the German soldier's rations has an unusual interest for American farmers. First, it is something that there is a fair margin of profit on, which there is not on wheat and corn sold abroad. Second, we would not have, for the present at least, the destructive competition of Russia and Argentina. But we fear that just as soon as the Kaiser's soldiers begin to eat peanuts in considerable quantities, he will order the German colonies in Africa to go into peanut raising. Anyway, it will be some years at least before they can produce as good and cheap peanuts as we can raise in the South.

The English are doing the thing that we have urged on the people of the South. They are building mills in Egypt to spin the cotton raised there. When we are properly developed not a ton of raw cotton will be shipped from the South. It will all be spun into yarn, at least, by the splendid water power now running to waste within a short distance of the cotton fields.

CHEAP wool does not mean cheap clothing by any means. There is where the demagogues have fooled the people of the country. The price of the four or five pounds of wool that enters into the average suit of clothes is a very small item in the ultimate cost. The main expense is in the labor.

ANXIOUS INQUIRY: The best time to spray free trade farmer robbers will be next November. Use the common-sense mixture, with the independent nozzle, and apply hot. See that the work is done before sundown.

That stanch Democratic organ, the Louisville Courier Journal, says that the Wilson Bill "will be a gold-brick swindle on the people."

DO YOU WANT TO MAKE MONEY?

HERE IS A SPLENDID CHANCE

THE AMERICAN FARMER wants 1,000,000 subscribers and it should have them. It is so good and so cheap, that it should be in every farmer's home.

We will give a very liberal commission to canvassers, young men and women, wanting to raise money to pay for education or for other purposes, and older ones out of employment cannot do better than to write to us for terms and sample copies, and engage in canvassing for subscriptions.

Almost any one ought to be able to make several dollars a day at this in any good farming community. Address

THE AMERICAN FARMER,

1729 New York Avenue,

Washington, D. C.

In spite of the depressing effects of the Wilson Bill, there is a slight improvement in the demand for wool. If the bill could be defeated there would be an immediate and very strong rise in price and development in demand. The sheep and shawl and factory stocks have been effectively cleaned out by the long drain upon them, and more goods are urgently needed. The question is whether these shall be of American wool and manufacture, or whether the country will be deluged with foreign goods. Nobody is going to buy anything that he can help until the question is settled.

CHICAGO bears claim that wheat will not go above 60 cents, because the moment it does English buyers will take Russian and Argentine wheat, which they can get cheaper. Why sell wheat abroad? Our own people will pay more than that, when they have plenty of work and wages.

ONE certain way of making farming pay and making money plentiful is to raise at home the \$300,000,000 worth of farm products that we buy abroad every year. Let us all unite on this.

Farm Mortgages in Minnesota.

L. G. Powers, Labor Commissioner of Minnesota, is a statistician of recognized ability, and whatever he says commands much attention from real thinkers and students. He has made a thorough study of the farm mortgages in his State, and presents the results in his third biennial report.

He finds that the mortgage foreclosures in Minnesota on farm property have in the last 10 years decreased, relatively, 35 per cent, and that the general condition of the farmers, as a whole, has to that same extent been improved since the year 1880. In certain of the Counties the number of the foreclosures of mortgages has been considerable, but these are largely massed in a few Townships containing the poorer lands, while the experience in other Counties shows that the general condition of the agricultural districts has so improved that, relatively, there is but little more than one-half the mortgage foreclosures which existed in the 15 years before 1881.

Commissioner Powers says respecting loans made in Minnesota: Very many of the borrowers have been speculators, and not farmers. They have, by nominally complying with the laws of the United States, acquired titles to some land, not intending to farm it, but to sell it and realize something from the proceeds. When land has settled up quite rapidly and there has been a great demand, these speculators have been able to dispose of their claims by sale. In dull seasons, such as have recently prevailed in the farming regions of the Northwest, the cash sales of new farming land have been difficult, especially with the poorer grades of land. Men with money to buy land usually know enough about the same to discard the poor tracts which are to be found in nearly every County in the Union; hence the only way for a speculator to realize any cash out of a poor piece of land is to mortgage it to the fullest possible extent and then abandon it.

The evidence collected shows that in many respects the burden of mortgage indebtedness rests more heavily upon the owners of speculative property than upon that devoted to legitimate business, and that the farmer is suffering, relatively, the least of any calling. The chief reason for this improved condition of affairs is, in Commissioner Powers's opinion, found in the improved methods of agriculture which have been introduced in the last 10 or 15 years. Before that time the farmers of Minnesota relied for their income quite largely upon wheat. Now, in the longest-settled groups of Counties improved methods of husbandry have brought with them a greater variety and rotation of crops. The amount of wheat raised in these Counties is but a little over a third of what it was 10 years ago. Instead of depending upon one product alone, the farmers have varied their production, and in this way have not only increased the value of their land, but have put themselves in a position to liquidate their obligations, and in those cases where their land is mortgaged to defy foreclosure.

Ask all your neighbors to subscribe for THE AMERICAN FARMER.

Departure from Normal Rainfall for Week Ending April 23, 1894.



WASHINGTON, D. C., April 24, 1894.

TEMPERATURE.

The week was warmer than usual in all districts east of the Mississippi River and in Louisiana and Texas. The temperature was also slightly above the normal in the interior of California and in Montana. The greatest excess in temperature occurred in the districts on the Atlantic Coast and in the Lower Lake region, where warm rains greatly improved growing crops. Generally the week was cooler than usual in the States west of the Mississippi River, but the weather conditions were favorable, and all crops are reported as in good condition and improving. In the Spring-wheat region the weather continues cold and wet, and growth and seeding have been retarded.

On the Pacific coast the weather conditions were favorable in Washington and Oregon, except the frosts that occurred on the 17th in the southern Counties of Oregon.

Drouth conditions continue in California, which have seriously affected the outlook for grain, hay, and pasturage. Drouth conditions also continue over the greater portion of Florida, seriously affecting all crops, and the light showers which occurred during the latter part of the week were insufficient to afford material relief.

PRECIPITATION.

The rainfall was greater than usual over the interior of the Atlantic Coast States and over the greater portion of the Lake region and the Spring-wheat region. Showers, generally light and well distributed, occurred elsewhere, except in portions of Arkansas and west Tennessee, where heavy rains occurred. Although the rainfall was less than usual near the Atlantic Coast line, the rains in this section were especially beneficial to the tree interests.

The total absence of rain in California intensifies the drouth conditions in that State, which have already proved injurious to growing crops, the telegram of last week reporting the grain crop almost a total failure in the southern part of the State.

The following telegrams give the general crop conditions and the effects of the weather upon the same from the several States, based upon reports received during the week from about 10,000 special correspondents:

Cultivation of the Teasel.

A very important branch of the agricultural industry of New York State is the cultivation of the teasel, that essential to the "fullers" trade, for which as yet all mechanical ingenuity has failed to devise a substitute. It was not until quite recently that the growing of the teasels in the United States has been conducted upon a paying basis, and our domestic cloth manufacturers were obliged to secure their supply from France, England, Belgium, Austria, Poland, and the Crimea, where teasel culture has for years occupied a position of prominence. In France there are over 6,000 acres devoted to this industry exclusively, and the annual yield is valued at close to \$5,000,000. Of this quantity some \$2,000,000 worth are necessary for home consumption, and the rest, upward of 40,000 tons, are exported. The teasel, or, botanically, the *Dipsacus fulgens*, is a burr weighing about as much as an ordinary burdock. The prickles of the teasel have a small knob at the end, and this is mounted on an elastic stem, and set with great precision on the central spindle, which, revolving, claws the surface of the cloth and raises a nap.

Cheap Music.

We will send a number of the New York Musical Echo, containing 32 large pages of the best music written—songs, selections from operas, waltzes, etc.—upon receipt of the coupon below, and seven cents in stamps. This is a rare chance to get a large quantity of the best kind of music at a nominal price.

AMERICAN FARMER, Washington, D. C.

Inclosed find 7 cents, for which send one number Musical Echo to

Name

Address

Co.

State

NOTE.—We cannot send any particular song or piece of music desired—only a number containing a large amount of very good music.

SPECIAL TELEGRAPHIC REPORTS.

New England.—Weather very favorable; precipitation heavy in northern New Hampshire and with melting snow has caused high water and serious washouts ahead of average; early planting well under way in some and begun in north.

New York.—Rain, with fine rains, invigorated vegetation; everything very promising; work progressing rapidly; much seedling done; early potatoes planted; fruits promising, except early peaches.

New Jersey.—A very favorable week for plowing, seeding, planting and growing. All growing crops much improved by the warm showers of Friday and Saturday.

Pennsylvania.—Conditions favorable for growth and planting; winter grain looking well and some getting a good start; oats and potatoes seeding well advanced; fruit prospects improving.

Virginia.—The warm rains improved wheat and all growing crops; corn being planted; preparations being made for large acreage of tomatoes; tobacco plants generally in good condition; a prospect of some early peaches and fair yields of other fruits.

North Carolina.—Very favorable week, with frequent showers later part; unusually large acreage of corn planted; some cotton up; small grains, especially wheat, looking well.

South Carolina.—Good growing weather generally, except in Coastal Counties, where ground is dry; cotton and corn planting progressing rapidly, with good start where up; grains and small fruits improving; prospects more encouraging.

Georgia.—Weather favorable for planting, but latter part of week too cool for rapid growth of cotton planting is nearing completion; corn has improved greatly and is being plowed; wheat has improved greatly.

Florida.—Showers Friday revived crops in northern Counties; corn growing rapidly; wheat to material relief severe drouth; all crops need rain; young oranges dropping badly.

Alabama.—Very favorable week, except nights of latter part; much progress made in all crops; cotton and corn planting progressing rapidly; wheat and other crops looking well.

Louisiana.—Good growing weather; much rain in northern parishes, which retarded corn; cane doing well; wheat injured in some parishes; cotton doing well; rice planting progressing rapidly.

Arkansas.—Planting done; wheat and corn planted; cotton planting progressing rapidly; pasture, pastures, and meadows doing well.

Missouri.—Conditions more favorable during past week; wheat, grasses, and vegetation improving; corn planting in progress; some corn up; cut worms increasing and very destructive to corn; tobacco plants doing nicely; pastures improving steadily; strawberries doing well.

Illinois.—Conditions more favorable during past week; wheat, grasses, and vegetation improving; corn planting in progress; some corn up; cut worms increasing and very destructive to corn; tobacco plants doing nicely; pastures improving steadily; strawberries doing well.

Indiana.—Rainfall above average; temperature normal; sunshine below average; rain beneficial to all vegetation, but sunshine needed for rapid advancement of growing crops; corn, oats, and grasses making slow growth; wheat corn planted.

Ohio.—Weather more favorable, warm, with rain, fruit prospects promising.

Kentucky.—Cloudy and cool, with excessive rain; vegetation progressing fairly; wheat and grasses greatly improved; corn planting delayed by wet soil; tobacco plants promising well; good prospects for small fruits.

Michigan.—Greater portion of week too cold and cloudy for rapid growth of crops; wheat distributed; wheat and late sown oats look well; corn planting interrupted in some sections by rains; fruit prospects more encouraging.

Wisconsin.—Rainfall above average; temperature normal; sunshine below average; rain beneficial to all vegetation, but sunshine needed for rapid advancement of growing crops; corn, oats, and grasses making slow growth; wheat corn planted.

Minnesota.—Weather more favorable, warm, with rain, fruit prospects promising.

Nebraska.—Cloudy and cool, with excessive rain; vegetation progressing fairly; wheat and grasses greatly improved; corn planting delayed by wet soil; tobacco plants promising well; good prospects for small fruits.

North Dakota.—Greater portion of week too cold and cloudy for rapid growth of crops; wheat distributed; wheat and late sown oats look well; corn planting interrupted in some sections by rains; fruit prospects more encouraging.

South Dakota.—Rainfall above average; temperature normal; sunshine below average; rain beneficial to all vegetation, but sunshine needed for rapid advancement of growing crops; corn, oats, and grasses making slow growth; wheat corn planted.

Montana.—Weather more favorable, warm, with rain, fruit prospects promising.

Idaho.—Seeding and planting nearing completion; warm rains last of week improved crops and garden conditions in and about cities; fruit prospects promising.

Utah.—Cold, wet weather of early part of week, but rain of latter part, with wind, has been very beneficial; planting about completed in extreme western portion, and seeding in progress in other sections.

Wyoming.—Average temperature and sunshine; precipitation above normal; crops in good condition; a large amount of seeding has been done in some sections.

Colorado.—Seeding and planting nearing completion; warm rains last of week improved crops and garden conditions in and about cities; fruit prospects promising.

Arizona.—Cold, wet weather of early part of week, but rain of latter part, with wind, has been very beneficial; planting about completed in extreme western portion, and seeding in progress in other sections.

California.—Seeding and planting nearing completion; warm rains last of week improved crops and garden conditions in and about cities; fruit prospects promising.

Oregon.—Average temperature and sunshine; precipitation above normal; crops in good condition; a large amount of seeding has been done in some sections.

Washington.—Seeding and planting nearing completion; warm rains last of week improved crops and garden conditions in and about cities; fruit prospects promising.

Alaska.—Temperature and sunshine about normal; no rains during week; hay in progress; pasture, pastures, and meadows doing well.

Idaho.—Seeding and planting nearing completion; warm rains last of week improved crops and garden conditions in and about cities; fruit prospects promising.

Utah.—Cold, wet weather of early part of week, but rain of latter part, with wind, has been very beneficial; planting about completed in extreme western portion, and seeding in progress in other sections.

Wyoming.—Average temperature and sunshine; precipitation above normal; crops in good condition; a large amount of seeding has been done in some sections.

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Oregon.—Average temperature and sunshine; precipitation above normal; crops in good condition; a large amount of seeding has been done in some sections.

Washington.—Seeding and planting nearing completion; warm rains last of week improved crops and garden conditions in and about cities; fruit prospects promising.

Alaska.—Temperature and sunshine about normal

Hard Times.

on a sign of colts, that will improve but age. Keep from 4 to 10 good cows, instead of having three dry nine months in the year, have them give milk 10 months in the year. See that they are properly housed, fed and cared for, to produce the greatest amount of milk at the least cost. Decide what breed of hogs you keep and stick to that breed. Keep 10 to 15 brood sows, and should you have had luck in the Spring with pigs, brood sows to have a second litter in September. Arrange your debts so that you will have to feed all your shoats off in the Winter. Feed part so as to have some sell most every month, but have the main part of your pigs fattened in the pasture in May, June, and July. Always make it a point to have something to sell on the farm every week in the year. Instead of having a large store bill in the Fall of the year, try and buy what your family need with butter, eggs, poultry, potato, etc. I think a farmer should live large

SENATOR PEPPER'S SPEECH.

Don't be deceived by Substitutes!
Prepared by Scott & Bowne, N. Y. All Druggists.

"I do not forget, while wool is to be fine, that mungo and shoddy are to have the same treatment."

perous, finding a market for their products in the manufacturing cities and villages of the State. They are necessary,

plus institutions and individuals interested in civil- line of work will co-operate as the in- ily gations develop.

Action of Ammonia Phosphate

When writing mention this paper.

SATURDAY, APRIL 14.

By Mr. Boutelle: From citizens of Abbot Me., for the same.

institutions and individuals interested in the line of work will co-operate as the investigations develop.

When writing mention this paper.

Don't be deceived by Substitutes!
 Made by Scott & Bowne, N. Y. All Druggists

EDITOR AMERICAN FARMER: We have had a nice Winter, also measles in abundance, and lots of other insignificant difficulties; but the effects of the Wilson Bill are the worst of all.—CAPT. J. H. BOURNE, Hellens, Md.

When writing mention this paper.

A SECOND COURTSHIP.

BY MARGARET L. KNAPP

HE THURSDAY EVENING meeting was over. Some one had opened the outer chapel door, and a stream of cold air flowed in up to the corner where a group of women were gathered about the stove. "Nancy Bell ain't out to-night, is she?" asked one of them, a stout, good-natured woman in mourning.

"I've heard she was failing considerably lately," continued the other. "She hasn't ever got up from the grip last winter. I shouldn't be surprised if she didn't last long. He don't realize it, it ain't likely—men ain't apt to."

An old man in a faded brown overcoat, on the other side of the stove, slowly away to the door. It seemed to Daniel Bell that it had grown colder in the last hour.

What had those women meant by speaking of Nancy like that—as if it had been anybody? If they'd lived with her more'n 40 years, as he had, they wouldn't have talked that way.

Nancy had been pretty sick; he knew that well enough—hadn't he taken care of her? Anybody else might have got discouraged and given up; but she had weathered it as she had weathered other things. She had come along—she was smart, Nancy was.

The door turned into the yard of his own accord. Daniel unhesitated him with stiff fingers. The barn was warm, and had a clean, dry smell. Daniel was careful of his horses.

"I thought it was about time for you, Dan!" said his wife, as he opened the sitting-room door. She was looking up at him with her usual smile, but through the dazzling lamplight which made the room seem before his eyes, it was not her face that he saw, it was Nancy, the wife of his youth.

Mrs. Bell was a pretty little old woman whose cheeks still wore a little of their old-time color. The softened look in her black eyes had not been there in earlier days. She was knitting a stocking. Daniel drew his chair to the other side of the table and opened his weekly paper. But he was not reading. He was using the paper as a cover behind which to watch his wife; the feeble back, still held upright in her chair; the cough choked back now and then; the busy hands. Something in those rheumatic hands as they plied the yarn presently made him say, hesitatingly:

"I couldn't do any more to-night, Nancy."

"What say, Dan?"

"I wouldn't knit any longer to-night, if I was you."

"Why, I want to get these stockings done. 'Twon't be long 'fore you need 'em." Her voice was still brisk and decided.

"I guess I could make out to buy some at the store, if worst comes to worst," suggested Daniel, with a faint-hearted attempt at pleasantry.

"Well, I don't intend you shall have a wear out any slazy bawtered stockings while I live!" she answered.

The newspaper rustled in Daniel's trembling hand. The letters on the printed page stared at him in their blackness. "While I live!" Every thing struck the same chord to-night. He breathed hard. Even to himself he could not think in words. It was all summed up in one articulate feeling—to move Heaven and earth to keep Nancy with him a few years longer.

It was Daniel's regular custom to build her fire and set the kettle boiling before Nancy got up. When she entered the kitchen next morning she found not only a full wood box, but a pile of freshly-split kindlings and a brimming pail of water standing in the sink.

"Why, what under 'lection'?" she exclaimed to herself; "brushed up the stove hearth, too—an' if he aint gone an' ground up coffee enough for three or four days! It ain't so good when it's kep'." Well, I shan't tell him—and after the old couple had had their comfortable breakfast together, and Daniel had said again, "I wouldn't do too much to-day, Nancy," she remarked in a casual tone, "I won't take me long to get my work done. I shan't have to stir round a great deal, I guess, everything's fixed so handy." It was her way of saying "thank you."

As they sat before the stove in the evening, a smile moved around the corners of his mouth, and he dropped the back of his hand upon his knee with a gentle slap.

"What you so pleased about, Dan?" Daniel finally inquired.

"I was thinking about old times. You remember the time I come up to you after singing-school and asked if I should see you home, an' you says 'No, sir, I can see myself home!' an' walked off, an' you hadn't gone three steps before you fell right down on the ice ker-back!"

"Beats all!" said Daniel, in some admiration. "Girls are queer creatures, take 'em whichever way—so are women—most women," he added, with a touch of caution.

"They'd have to be queer to be queerer'n men folks," said Nancy.

"You was a good deal taken up with Angeline Foskett, too, 'bout that time. I don't deny she was pretty looking with those curls of hers."

"Curls are well enough," said her husband, "but they aren't very substantial to get married on. She didn't peter out well."

"I heard to-day that Mr. Johnson was married," began Daniel, after a pause.

"Land sakes, Dan! Who to?"

"A girl from the factory at Crawford, so they say. It may not be so."

Nancy knit energetically to the middle of her needle. "Well, she may be a nice enough girl, but I'd hate to board at their house," she declared.

"Oh, I dun know," replied the more lenient Daniel. "She may do better'n we think."

"She won't, it ain't likely. I pity the poor man. Ministers ought to be well fed, to keep up, so's not to grow spindlin'. They run more to brains."

"It isn't everyone that's got your knack of cooking," said Daniel.

"Well, you was always a good provider, Dan! It makes a sight of difference."

"It ain't altogether that," continued Daniel, now waxing argumentative.

"You want never put it to if comp'n come unexpected. You could get up a tasty meal out of anything. It's a knack, I hold it—equal to the best. I haven't forgot the first meal I had to your house. Seems 's if nothing ever tasted so good, hardly, as those flapjacks. You was in a pink calico—I can see you just as you was then. You had a rose in your hair. It looked sweet as a peach."

"You don't say you remember that dress? I've got a piece of it in a bed quilt now," said Nancy.

One night, when he had driven over for the mail, he took a package from his pocket. "And here's something for you." If he had been a young man, making his first present to his lady love, Daniel could hardly have felt more awkward about it. He began to untwist the ends of the small tissue paper parcel, but abandoned the attempt, and placed it in his wife's lap instead.

"Why, Dan! Oh! why, Dan! How handsome 'tis!"

It was a necktie of pale lavender silk, with very soft, thick fringe.

"If 'tain't right, we can change it," Daniel was anxiously rubbing his knee.

"I guess it is right; it's a beauty. How come you to?"

"I happened to think of it when I was in the store, an' I went across where they keep 'em. The girl come right toward me—I know who she was—she was one of St. Andrew's girls, over t' the Corners. Says I, 'I want to see the right thing for a lady with white hair.' 'Oh, for your wife?' says she—she's a quick spoken girl—an' she showed me this one. 'I know this will be right,' she says, 'for I've seen her wear the same color on her bonnets, and it's very becoming.'"

"You're a great one, Dan!" His wife laughed, though still with round, shocked eyes. She laid the tie over her knee, and then held it up to the light.

"It'll be beautiful on my black silk—the waist's plainer'n they make 'em now." No other words were said, and Daniel was not conscious of needing any.

"What you say to driving over t' the church sociable to-night?" was Daniel's inquiry, a few nights later, just as Nancy had finished her work and drawn out her rocking chair. "I do know as we get out often enough. It's good sleighin', an' we can't count on that very long."

Nancy finally decided to go, and put her head out of the bed room door a moment later. "Don't look like snow, does it?" she asked. Daniel shook his head. "I guess I'll wear my new bonnet," she said.

When she appeared in her new bonnet and the black silk with the lavender tie, Daniel privately thought her a very handsome old lady. "Got enough on?"

"Why, yes, I guess so."

"No, you haven't," Daniel brought a shawl he had warmed at the stove, and wrapped it around her. "I ain't going to take any girl riding an' have her ketch cold." He stooped down to button her long cloak over it. "I don't have rheum'tiz," he explained, while Nancy, in her turn, pulled the bow of his cravat out carefully.

The air was so crisp and cold, and the starry sky so clear that the old couple felt a youthful tingle of exhilaration at the thought of the two-mile drive. Daniel carefully helped his wife in and tucked the robes about her. "Feels comfortable," she murmured through her veil and the muff she was holding against her face; and Daniel took hold of her hand a moment, pretending to arrange the robe.

"It sort of chirks a person up to be amongst folks," said Nancy, on the way home. "I was always fond of goin'. An' we seem to enjoy more than most. D'you notice how John Sheldon an' his wife stayed together till the whole evening. Well, now, what good 'd they get out of folks? You want to mix up with other folks more, an' then you have something differ'n't to tell when you get home."

"That's the way you used to do when you was a girl?"

"Well, yes, that's the way."

"Why, now, I can tell you that used to make me jealous," said Daniel.

"P-h-h!" said his wife, giving his knee a playful pinch—and this time

Daniel made no pretense of arranging the robe.

Whether these husbandly attentions acted as a tonic it is impossible to say; but, as the winter advanced and the snow still lay rugged and broken, but without melting, on either side of the roads, some of Nancy's energy seemed to come back. Now, again, her old ways claimed her. Daniel coming in from the barn one bleak afternoon was made pleasantly conscious of the odor of waffles before he opened the kitchen door. "So this is what you've been up to, is it?" he inquired, with a sniff of anticipation.

"It seemed, as you might say, a good day for waffles," answered Nancy.

"Why didn't you tell me you was going to have 'em? I could have helped you."

"Oh, I thought they'd taste better as a surprise."

Daniel washed his face and hands at the sink, and held the towel far from him upon his outstretched hands, as a man's way is. He looked around the room. Since Nancy had grown so feeble they had taken their winter meals in the kitchen. The table was primly laid, with preserved peaches and shaved dried beef. Nancy, with a white apron tied about her waist, was hovering near. With the impulse which came to him at the moment, Daniel bent over and spoke in her better ear—for this was not a thing to be said twice over:

"Nancy, you know you ain't give me a kiss this ever so long?"

Nancy had the waffle platter poised upon her hands. She stopped. You ain't asked me, have you?" said she, glancing over her shoulder at him with a spice of her old coquetry.

"Well, has a man got to ask his wife every time after he's lived with her more'n 40 years?"

"Why no, not as I know of." She tapped her foot upon the ground, as she might have done 40 years before. There was a soft flush upon her old New England cheek. Daniel kissed the pinkest place, and she reached up to his other cheek and gave it a quick little peck. "There! go 'long with you!" she said. "Bless God for my husband!" it was what it meant.

Later on there came a stretch of beautiful days, cold indeed, but not with the deadening cold of December. "Well, who'd you see up to town?" was Nancy's question as Daniel came in at dusk. She shut her book over her spectacles in anticipation of the gossip which Daniel had grown in the habit of bringing home, but as he only answered, "Oh, nobody in particular," she looked for her place again, a little disappointed.

Daniel set his boots upon the foot-stool to dry, and thrust his feet into the slippers Nancy had warmed for him. "Let's see—when'd we hear from John last?" he asked, presently, in a reflective tone.

"Two weeks ago, come Sat'day," was Nancy's reply.

"I've been thinking—what's to hinder about that visit they was talking of? You know they wanted you to come for Christmas, but twan't so?"

Nancy put on her spectacles and then took them off again, bewildered.

"I'm fixed to spare the money now," he went on; "an' a little trip will likely do you good. That nakesake of yours 'll be wanting to see how her grand-mother looks."

Nancy's heart gave a great bound at the thought of the grandchild she had never seen, little Nan, whom she longed to have upon her knee; but she said, hesitatingly: "But, Dan!"

"You're a woman that was ready to start off anywhere!"

"Yes, I'm so I could go—though there's things I ought to have if I was going—but I can't leave you, Dan. We're getting old folks. You wouldn't get along."

"I guess I can get Marindy Peters to come an' cook for me, suggested Daniel, with a joocose twinkle in his eye, as though all had not been told yet.

"Well, I'd be dreadful hard put to it before I'd let you eat Marindy Peters' cooking," said his wife with decision; "shutless, meachin' cretur enough. B'sides, how'd I ever get there?"

"It's easy gettin' to Buffalo. Put you right on board a sleeper."

"Yes, an' I shouldn't sleep enough to pay for my ticket; I should be so afraid they'd put a man over my head."

No, Dan! it's real kind in you to think of it, but I can't go off so far an' leave you—I can't noway!" She had risen, and was agitatedly brushing the top of the stove with a turkey wing, though there were no ashes on it.

Daniel drew a ponderous breath; his little surprise was even more enjoyable than he had anticipated. "I haven't said I was goin' to be left yet," he remarked, slowly.

"Why, Dan! you don't mean?"

"I don't propose to let you get lost alone in that sleeper—that'd never do any way in the world. I guess we can manage to get there together, eh? What you s'pose the boy'll say to see us come in? 'Twill be a sort o' bridal trip, won't it?"

The old man was looking at her with deep wells of tenderness in his eyes. Nancy made a step toward him, and put her hand up to his coat, as if to brush away invisible dust. Suddenly his arms closed around her, and held her. He kissed her bent head and cleared his throat, patting her worn back gently. "I got a good wife when I got yee, Nanny," was what he said at last.

His wife did not answer. She leaned against him and slowly stroked his shoulder up and down with one tremulous hand. She was crying—Worthington's Magazine.

When you burn up trimmings and other rubbish, give the ashes to the trees. Where wood ashes are obtainable, they are better for the trees than muriate of potash. The latter should be applied with bonemeal, five to ten pounds each to each tree.

THE ENIGMA.

(For the leisure hour of readers, old and young. All are invited to contribute original puzzles and send solutions to the publisher. Names and names of solvers to this issue will appear in six weeks. After a puzzle is defined, solutions to it will be accepted. Address: THE AMERICAN FARMER, 1729 New York Ave., Washington, D. C.)

ENIGMANIA—NO. 1.

NO. 1—DECAPITATION.

When you kissed me, Chloris, dear,
Lifting up your flower-face,
With a shy and artless grace,
Heaven to earth was very near—
When you kissed me, Chloris, dear,
Softly clasping round my neck,
Not a king for all his crown
Could the half of my joy seek;
I was more than king's compeer
When you kissed me, Chloris, dear.
How you trembled at it, sweet,
Half ashamed to do it, sweet,
How your whole breast nimbly beat
'Gainst my own at our lips' touch!
Both your bright eyes held a tear
When you kissed me, Chloris, dear.
How the blood within me thrilled
As I drank your lips' sweet wine
How I craved you and you still!
Close against this heart of mine
Eyes to eyes spoke love so clear
Words were needless, Chloris, dear.

Ah, my Chloris! years have sped
Since that dear, eventful day,
Yet I live with lightest tread
Travel down love's rainbow way.
Life is fair when love is near—
Come and kiss me, Chloris, dear!
—GUIDON, Washington, D. C.

NO. 2—SQUARE.

1. Something that produces extraordinary effect. 2. A Swiss canton. 3. Town of Switzerland. 4. Served. 5. P. O., Barbour County, Ala. 6. P. O., Providence County, R. I. 7. Canon of Ravenna and chronicle. 8. Not requisite.

—DAN. D. LYON, Irwin, Pa.

NO. 3—TRANSPARAL.

Within the grove a gipsy tea
Camp in their dingy canvas dwelling;
They drive a horse-trade now and then,
But mostly deal in fortune-telling.

There, for a quarter, you may buy
Promise of honors, wealth, and spouses,
Though country people living high,
Discreetly lock their poultry houses.

I watched a girl, whose regal air
Discreetly looked hardly another;
"See Cleopatra standing there!"
I whispered my prosaic brother.

He peered as through a microscope—
No convex lens was ever keener—
"Queen Cleopatra? Um! I hope
Her Majesty was somewhat cleaner!"

—M. C. S., Springfield, Ill.

NO. 4—HALF SQUARE.

1. A tyrant fly catcher of the Southern U. S. and Mexico. 2. Hundredth parts of a meter. 3. To overhang. 4. Producing stamens. 5. Non-metallic elements analogous of carbon. 6. Inauspicious. 7. Works having two faces. 8. Sings. (M. and S.). 9. A kind of wig. 10. The unit of superficial measure. 11. A verb. 12. A letter.

—ITAMI, Jersey City, N. J.

NO. 5—TRANSPARAL.

On the world of shadows dim,
Where falls the darkness, dear,
There comes an evening hymn
Unto my listening ear.

A word of praise, a word of prayer
The soul does not forget,
But through its weight of woe and care
Sound PRIMES without regret.

What thought its lot be sad and tried?
There comes no bitter plaint,
For with the dawn of morning lies beside
No earthly murmurs find.

Through misery, through hunger fires,
Through life's most fearful trials,
It still strives on the veil to pierce—
The way its Maker wills.

The lowly self, the haughty ALI,
May both in darkness grope;
But leading, guiding from the fall,
There shines the star of hope.

—CINDERES, Philadelphia, Pa.

NO. 6—SQUARE.

(To Iron Mask.)
1. To change from a solid to a fluid condition. (Standard.) 2. A genus of birds, including the chattering fly catcher. (Unab.) 3. A parish of England; County of Northampton. (Lipp, old Ed.) 4. Town, County of Naples. (Wore.) 5. Old World singing birds of the family Oriolidae. 6. A female lion. 7. Any one of the numerous species of butterflies belonging to Vanessa and allied Genera.

—JO. MELLINS, Miami, Mo.

NO. 7—TERMINAL DELETION.

The spider's web shall drape the throne
Where once the royal purple shone,
And on the city's broken wall
The owl, the watching cry shall call.

One thou majestic, mighty one,
Thy day was bright, thy day is done;
A world walked captive in thy train,
Thy scattered wreck bestrewn the plain.

Is dead in thy deserted street,
A grim old hood of marching feet,
And palace, temple, colonnade,
In one tumultuous ruin laid.

Mark! All thy glory's empty place,
The charnel of a vanished race,
O, where are now thy heroes held
Where once thy warriors' blood was cold?

Their ashes dust the gleaning halls!
'Neath yonder high triumphal arch
Now nought but glittering shadows march;
But there, with face in transfixed hands,
A grim old hood of marching feet,
Broken by the shade is thrown,
An hourglass shattered on the stone,
And o'er the city's shuddered zone
Stands Time, a figure of remorse!

—IDOL MANS, Batavia, N. Y.

NO. 8—DOUBLE HALF-SQUARE.

Across: 1. A letter. 2. A prefix. 3. A chariot of war. 4. Code of France. (Unab.) 5. The world. 6. Marshal of France; 1769-1809. 7. Greatest. 8. Bologna painter; 1561-1608. 9. A town of France. 10. Corn. 11. Slapdash. 12. One of a class of poets of the 15th and 16th centuries.

Down: 1. A letter. 2. To take. 3. A river of Russia. 4. French translator; 1550. 5. A town of Spain. 6. A lamprey. (Cent.) 7. A gift. 8. Italian actor; 1612-1700. 9. German soldier of fortune; 1612-1700. 10. Having a close relation. 11. Incandescence. 12. A large dragon fly.

—A. F. HOLT, Lynn, Mass.

NO. 9—CHARADE.

(Penitence.—To Solitaire.)
Star of the sea thy name men call
My heart is held in deepest thrall,
Thou art the sole star of my sky,
My final of the merry eye,
Men hold their PRIMES' meath look and key;
Thou art the sole star of my sky—
I'd wear my PRIME that all might see!

Men heard their PRIMES' meath look and key;
Deep in some all their jewels hide;
I'd wear my PRIME that all might see—
My peerless LAST thou art my pride!

Deep in some all their jewels hide,
The miser hearts grown with greed—
Love, make for all thy plying moon—
Love is my sole and only creed—
Life's radiant star is love alone!

Love, make for all thy plying moon—
Star of the sea thy name men call,
My radiant star is Love alone—
Life's heart is held in deepest thrall!
—BEECH NUT, Newburg, N. Y.

EMOLUMENTS.

1. To the person who suggests the most original, novel, and interesting feature in this column, a nickel-silver, gold-timepiece. See what your brains can evolve.

2. For the diamond, square or half-square containing the most letters O's, a handsome gold and silver-mounted holder.

3. For the best diamond, square or half-square, containing the most letters O's, a handsome gold and silver-mounted holder.

4. For the best verse puzzle, to be closely restricted to the theme "Summer," a handsome gold and silver-mounted ivory holder.

5. For the best list of answers to "Enigmas," Nos. 1, 2, 3, and 4, and for the best list of 12 or more answers to same, a 40-page bound book each.

CONDITIONS.

In awarding prizes 2 and 3, size of form and number of pure Websterian words will be considered; also, accuracy with which definitions are given, even to the "Comptatory" verse puzzles must not be overlooked. Only one puzzle can be entered by any contestant for any prize, but one entry for each puzzle will be allowed. All contributions must be marked "Entered for Prize," and must reach us on or before June 15. No prize will be overlooked in the award of No. 6, and word-forms should not be abbreviated. All classes open to subscribers. Do not send six-month subscriptions.

ENIGMANIA.

"The Enigma" makes its bow to the readers of this paper and the little puzzle word on the same day that "General" Coxey has chosen making his triumphal bow for the Congress of the United States and the residents of Washington. Coxey has planned a great crusade on his own thinking, at least; it has been widely heralded, and he expects to accomplish great results. Unlike him, we come before you determined upon no plan except to strive to interest the hundreds who enjoy a leisure hour with a problem; unheralded, and with no hopes of revolutionizing anything. We shall simply aim to entertain and instruct lovers of enigmatography, by placing before them a moderately difficult puzzle set-out of contributed matter that is choice, reliable to all. If you will take a kindly interest in it, "The Enigma" will immediately take and maintain a leading position among puzzle columns.—GUIDON

Stated in the preceding words above, it is characteristic of him, No. 1, is a character of him, No. 2, is a character of him, No. 3, is a character of him, No. 4, is a character of him, No. 5, is a character of him, No. 6, is a character of him, No. 7, is a character of him, No. 8, is a character of him, No. 9, is a character of him, No. 10, is a character of him, No. 11, is a character of him, No. 12, is a character of him, No. 13, is a character of him, No. 14, is a character of him, No. 15, is a character of him, No. 16, is a character of him, No. 17, is a character of him, No. 18, is a character of him, No. 19, is a character of him, No. 20, is a character of him, No. 21, is a character of him, No. 22, is a character of him, No. 23, is a character of him, No. 24, is a character of him, No. 25, is a character of him, No. 26, is a character of him, No. 27, is a character of him, No. 28, is a character of him, No. 29, is a character of him, No. 30, is a character of him, No. 31, is a character of him, No. 32, is a character of him, No. 33, is a character of him, No. 34, is a character of him, No. 35, is a character of him, No. 36, is a character of him, No. 37, is a character of him, No. 38, is a character of him, No. 39, is a character of him, No. 40, is a character of him, No. 41, is a character of him, No. 42, is a character of him, No. 43, is a character of him, No. 44, is a character of him, No. 45, is a character of him, No. 46, is a character of him, No. 47, is a character of him, No. 48, is a character of him, No. 49, is a character of him, No. 50, is a character of him, No. 51, is a character of him, No. 52, is a character of him, No. 53, is a character of him, No. 54, is a character of him, No. 55, is a character of him, No. 56, is a character of him, No. 57, is a character of him, No. 58, is a character of him, No. 59, is a character of him, No. 60, is a character of him, No. 61, is a character of him, No. 62, is a character of him, No. 63, is a character of him, No. 64, is a character of him, No. 65, is a character of him, No. 66, is a character of him, No. 67, is a character of him, No. 68, is a character of him, No. 69, is a character of him, No. 70, is a character of him, No. 71, is a character of him, No. 72, is a character of him, No. 73, is a character of him, No. 74, is a character of him, No. 75, is a character of him, No. 76, is a character of him, No. 77, is a character of him, No. 78, is a character of him, No. 79, is a character of him, No. 80, is a character of him, No. 81, is a character of him, No. 82, is a character of him, No. 83, is a character of him, No. 84, is a character of him, No. 85, is a character of him, No. 86, is a character of him, No. 87, is a character of him, No. 88, is a character of him, No. 89, is a character of him, No. 90, is a character of him, No. 91, is a character of him, No. 92, is a character of him, No. 93, is a character of him, No. 94, is a character of him, No. 95, is a character of him, No. 96, is a character of him, No. 97, is a character of him, No. 98, is a character of him, No. 99, is a character of him, No. 100, is a character of him, No. 101, is a character of him, No. 102, is a character of him, No. 103, is a character of him, No. 104, is a character of him, No. 105, is a character of him, No. 106, is a character of him, No. 107, is a character of him, No. 108, is



Spring Poem.

BY A. W. POSE.

The angels peak their winter clo'es, their
dresses from head to feet—
An' douse perfume on 'em, at what makes
the air so sweet.
The d'firin' heavens they see the hills 'th winds
and gentle showers.
An' then the jolly, gigglein' hills they see right
back 'th flowers.
The earth whose joints have been so stiff 'th
frosty romantic,
Just puts her sunshine plaster on an' goes about
her biz;
An' n'atur she jest swallows down her tonic of
warm rain,
Shakes off the blues, and then resolves to try the
thing again.
The brook that's been a-grumblin' on way un'er
neath the snow,
Breaks into such a luffin' song it makes the May
flowers grow.
An' all the pussy willow buds just rush out in a
thrill
An' stan' there 'th their nightcaps on a-listening
to the song.
The brooks go peddlin' poetry, the robins strew
it round.
The bobolink jest sings it an' makes the air
resound.
In flowerin' lines er crocus no man should dare
t'oskip,
God writes his purtiest poetry on his medder
manuscrip'.

A Sad Mistake.



Miss Fernleaf (showing visitor through
conservatory)—Yes; these are our cacti.
Papa is so fond of them he spends most
of his time among them.
Near-sighted Visitor—Beautiful! And
what a peculiarly formed one this is!
Do you mind me pulling one of those
stickers out?



The Peculiarly Formed One (as he
feels the pull)—I'm a ****?

Wayside Repartee.



Cold Callahan—Say, Indy, that there
gag yer allus tryin' 'bout bein' a flood
sufferer never seems to work, does it?
Indolent Ivers—Now; dat's why I
like it so well.—Puck.

Not Responsible.

Mother—To think that my little
Ethel should have spoken so imperi-
tently to papa to-day at dinner! She
never hears me talk that way to him.
Ethel (stoutly)—Well, but you
choosed him and I didn't.—Brooklyn
Life.

What He Rested On.

Willie (just home from school and
very much excited)—What do you
think, pa? Johnny Smith, one of the
big boys, had an argument with the
teacher about a question in grammar.
His Father—What position did he
take?
Willie—His last position was across
the chair, face down.—Truth.

Lacked an Essential.

Mamma—What did you do to enter-
tain the little girl that came to play with
you?
Lottie—We looked at pictures and
told stories.
Mamma—Why didn't you play at
keeping house and visiting?
Lottie—We did try, but she didn't
know anything mean about the neigh-
bors and we didn't have anything to talk
about.

Forceful Argument.

"Lady, could you give a poor man a
cup of coffee?"
Mrs. Nuwile—No, breakfast is all
over.
"Well, I'll say this, that I've tramped
for two years, and it's the first place that
I've smelled genuine, first-class coffee
yet."
"Never mind your feet; they don't
look muddy. Just sit down here at the
table. Do you take cream and sugar?"

THE DAIRY.

Skimings.

The pig is now one of the most valuable
allies of the dairyman, and will
probably remain so for an indefinite
time to come.

Scab is sometimes caused by indigestion,
and sometimes by ringworm. If
the latter, wash thoroughly and paint
with tincture of iodine.

The French dairymen will not have
any other than the Holland or Dutch
cow. These are rapidly displacing the
former favorites—the Normandy and
Durham cows.

Milk is most likely tainted by the air
the cow breathes, rather than by the
food she eats. In other words, if you
have clean, sweet stables, you can feed
turnips, etc., without danger.

The Hollanders have simple two
breeds of cows—the large and small—the
difference being solely due to difference
in soils, the large being raised on
rich, strong lands, and the small on the
poorer.

No one can say which is the more im-
portant, good breeding or good feeding,
except that the best breeds can fre-
quently get along better on poor feeds
than scrubs can; but, again, a well-fed
scrub is frequently better than a poorly-
fed thoroughbred.

When the milk is strained I want
each crock or pan with the day of the
month and the figures 1 or 2 to distin-
guish between the mornings' and nights'
setting. Thus, on the second of the
month in the morning it would be 2-1,
and at night 2-2. In this way the age
of each pan can be told at a glance. A
bit of chalk or laundry starch makes a
mark which can be easily removed by
washing.

Prof. Wohl, of the Wisconsin Experiment
Station, gives as an exhibition of
what can be done by careful feeding,
etc., the results obtained from a herd of
Holstein-Friesians. The average time of
milking for the herd of 51 cows was 330
days, the lowest milking 225 days. The
average yield of milk for the year per
head was 8,292 pounds, and of butter
fat 271.2 pounds; the highest yield of
any single cow was 11,751 pounds of
milk and 382.6 pounds of butter fat;
the lowest yield, 4,788 pounds of milk
and 147.0 pounds of butter fat. The
smallest quantity of milk and next to
the smallest quantity of fat was yielded
by the cow giving milk only 225 days.

Rules for the Dairy.

1. Cow sheds should receive regular
and thorough cleaning every morning.
Refuse carried out to the manure heap;
stall well cleaned with farm hose, after-
ward brushed; channel brushed and
washed out well; clean bedding laid
down; feeding trough always cleaned
out previous to feeding time; warmth of
shed attended to, and no drafts of cold
air allowed.
2. Ventilation of cow shed should
have particular attention every morn-
ing; after the shed is cleaned out, open
top and bottom of window.
3. Cows well cleaned with the curry
comb and brush each morning.
4. The cow's teats cleaned before
milking.
5. Milk should have particular at-
tention in straining it.
6. Rooms containing cream and milk,
also milk pans, require careful attention;
washing and keeping clean of room and
milk vessels well attended to; the room
also kept well ventilated; no bad air al-
lowed.
7. Churns kept well cleaned; always
washed out clean previous to working
them.
8. Temperature of cream previous to
churning carefully attended to; for the
purpose have a thermometer 65 degrees
Fahrenheit in Summer and a few degrees
higher in Winter.
9. All dairy utensils kept perfectly
clean and also in a room for them-
selves.
10. No dairy utensils should be washed
inside a dairy; have a small wooden
trough outside the dairy for this pur-
pose.
11. Keep the floor inside the working
compartment perfectly clean; no milk
or other liquid allowed to remain on
it.
12. Attend to the washing of the
milk from the butter with great at-
tention.
13. The hands not allowed to come in
contact with the butter while making.
14. Butter not made up for final use
after salting, until a short period of time
elapses; also, butter should not be
worked too much. Use small wooden
spades for working the butter throughout
entire process.
15. Neatness observed in making up
of butter.
16. All dairy vessels employed for
making purposes kept strictly clean.
17. Working dairy compartments
should be well cleaned—floor, benches—
at end of week; also exterior portion of
dairy well cleaned. No water allowed to
remain in channels outside the dairy.
18. Have no decayed refuse near the
dairy on any account.
19. Feeding of milk cows carefully
attended to. Food should be clean,
fresh, and at regulated periods given.
20. A moderate supply of salt (rock)
very beneficial for your cows. Place
lumps of salt in the feeding trough.
21. The drinking water for your cows
should be perfectly clean; also the
vessels.—Dairy World, London.

Proper Temperature to Churn.

The temperature at which best results
are obtained vary somewhat, first, with
the season, being higher in Winter than
in Summer; second, with the kind of
foods given the cows, and third, in dif-
ferent dairies where difference in hand-
ling the cream may affect the churning
conditions. In Winter, where cows are

far advanced in lactation and consider-
able cotton seed or cotton seed meal is
fed, as high as 70 degrees F., or possibly
two or three higher, may be found desir-
able. In Summer, with fresh cows on
good pasture, as close to 60 degrees F.,
as possible will not be far wrong for the
same dairy. Each one must establish its
best degree of heat or coolness by
actual trials. Too much care cannot be
bestowed on the proper ripening of the
cream, unless you churn more for rich
buttermilk than butter.

A Balanced Ration.

The following formula presents a fairly
well-balanced ration for medium-sized
cows, when compared with American
standards:

	Albuni-	Carbo-	Fat.
	hydrates.	hydrates.	
1 1/2 lbs. timothy hay.....	38	4.30	.30
1 1/2 lbs. clover hay.....	38	4.30	.30
1 lb. bran.....	1.01	5.50	.30
	2.30	19.38	.58

For Winter feeding this formula shows
a deficiency in fat, and a little oilmeal
or ground flaxseed would be an excel-
lent addition.

Of course, cornmeal or corn and cob-
meal can be added, or substituted in
part for bran, especially if clover pre-
dominates in the hay.—Hoard's Dairy-
man.

Diversified Fruit Raising.

EDITOR AMERICAN FARMER: In the
general cry that is going up all over the
country in regard to the killing of peach
and other fruits is a lesson to the person
intending planting fruit the coming
season, and that ought to teach us that
we must not depend on any one kind of
fruit, but plant all kinds suitable to our
climate and location. We shall never
lose everything, and then when the
killing cold approaches we can rest as-
sured of some income from that source.
The first that comes is the strawberry. A
sufficient quantity of ground should be
planted to this queen of fruits in its fresh
state, to pay at least for the ground in
use, and also for the cultivation exclu-
sive of home use. A good way is to
plant one foot apart in the row, and the
rows four feet apart. Any good, moist
soil is right, but we have the best success
on clover sod. The first season clean
cultivation should be given until late in
the Fall, when a light covering of chaffy
straw should be placed over and between
the rows. The following Spring allow
this to remain till after fruiting, which
serves for moisture and also to keep the
berries free from grit. After the fruit is
gathered remove the mulch and give
clean cultivation the balance of season
until Fall, when repeat mulching. A
plantation of strawberries will not be at
its best after the third year, when a new
one may be set.

Of many methods we have tried, the
foregoing is the easiest and best in our
location. Of varieties there are many;
but we think the best, flavor, color, and
carrying qualities considered, are found
in the Haverland, Bubach, Wilson, Al-
bany, and Cumberland. These four
varieties will be found very satisfactory,
and should be in every collection.

Raspberries should never fail to be
planted, as well for home use as for mar-
ket. Set black raspberries four feet
apart in rows, six feet apart, on any
good soil. The better the soil the larger
and better the berry. The first year
cultivate thoroughly. Bear in mind
that fruit to give good satisfaction must
be kept as clean as corn. This applies
to all fruit, with the possible exception
of cherries. Cut the canes back in the
Spring, and cultivate the same as before.
After fruiting cut the old canes out and
keep the ground stirred and mellow. I
do not know of any fruit which gives
such rich returns for the labor bestowed
as the black raspberry.

In planting the red raspberry, care
should be taken that the ground is made
rich. Plants should be placed two feet
apart in the rows, and rows six feet
apart, and kept clean as possible. The
canes should be cut back every Spring,
or the ends nipped off. After fruiting
keep clean, but do not cultivate as late
in the Fall as the black ones, as this
might induce a sappy growth of the
canes, and would be more liable to Win-
ter kill. Of varieties there are many,
and for black, Mammoth Cluster and
Gregg are the best with us, and red
Mariboro for early and Cuthbert for
main crop.—Mrs. M. DAY, Francisco,
Mich.

Artichokes.

Paper read by Mr. C. P. Hauger at
the Greene County Farmers' Institute,
held at Paton, Iowa, Feb. 13 and 14,
1894.

I spent several years studying artichokes in
the papers and seed catalogs; I also asked
people who would be likely to know about
them. Now, artichoke literature is just the
same that it was 10 years ago, only the yield
per acre is now 1,000 bushels; then it was 500
or 600. Everybody said they would give
more food for hogs to the acre than anything
else you could plant, and the pigs would en-
joy digging them, and a piece of ground
planted to artichokes would be a perpetual
hog pasture. Some recommended them as a
sure preventive of hog cholera. I sent for
a peck of artichokes, which I cut and planted
just as though they were potatoes; land was
rich and gave good cultivation. The next
Spring I dug six hills and got a common pal-
till. I figured on the yield and thought I had
an average of nearly 500 bushels. I then dug
some of them and took them to my hogs to
see if they would eat them. The old sow
recognized them on the first smell. The next
year I planted a quarter of an acre of good
land and took care of them. In the Fall I
turned 40 head of shoats on to for two months.
These hogs grew and fatted well, and so far I
was satisfied. Why don't the farmers raise
more of them for their hogs? What arti-
chokes the pigs did not find, you had planted
for seed for the next crop. The frost would
not hurt them, they were safe, and you need
not bother yourself about it; just let it alone;
just see that you raise pigs enough to eat that
1,000-bushel-per-acre crop of medicated arti-
chokes stock food. I am satisfied that by
planting every year and cultivating well,
large quantities of them can be raised. The
hogs will dig them. Can you get rid of them?
Yes? Plow them under in June and sow
millet or Hungarian grass and you will kill
nearly all them.

THE AMERICAN FARMER is only 50
cents a year.

THE SCALE INSECT.

(Continued from first page.)

generations. The young louse is an
active, crawling creature, very minute
and yellowish in color. The young
spread out upon the new growth of the
tree, settle down, and each begins to
secrete a scale. During its traveling
stage it possesses the characters shown
at Fig. 3. The male is an active, two-
winged insect, and is shown at Fig. 4.
The full-grown female loses her legs and
antennae, and bears a very slight resem-
blance to a living insect. In this stage
the species is shown at Fig. 5.

The insect affects not only the young
twigs and limbs, and with young trees,
the entire plant, but is also found upon
the leaves and upon the fruit. When
abundant the fruit is destroyed. One of
the most characteristic points in the ap-
pearance of the insect upon fruit is the

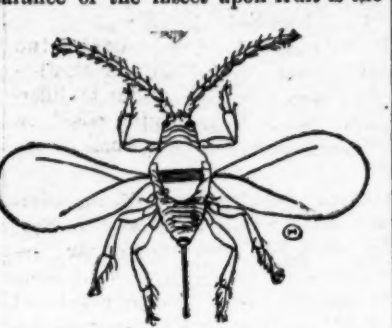


Fig. 4.—San Jose Scale: Male adult—greatly en-
larged. (Original.)

purple discoloration around the edge of
each scale. So far as we know this result
is confined to this one scale insect. An
infested pear is shown at Fig. 1a. Upon
the leaves the insects have a tendency to
collect along the midrib on the upper
side of the leaf, in one or more quite
regular rows, and also to some extent
along the side ribs. The infested leaves
turn brown, but do not have a tendency
to fall as a result of the damage.

HOW THE INSECT SPREADS.

Aside from the transportation of the
insect upon nursery stock, it may be
carried upon fruit sent to market. These
are its principal modes of travel from
one part of the country to another. In
orchards and in neighborhoods its spread
is in the newly hatched condition only.
The female is wingless and after once be-
coming fixed cannot move; the male
alone is winged. The young lice, as be-
fore stated, are active, and crawl with
considerable rapidity and great per-
sistence, so that they may descend from
one tree and crawl for a number of yards
to another tree. The spread in this
manner, however, is comparatively in-
significant. Strong winds may carry the
young bodily from one tree to another,
but the principal method of spread of
these young lice is by means of other in-
sects which are winged, and by birds.
The active young lice will soon crawl
upon a small winged insect, particularly
if the latter is of a dark color, and are
carried by it to considerable distances.
The young lice also crawl upon the feet
of birds which visit the tree and may
thus be carried for miles. They are
often found crawling upon ants, and
ants, as everyone knows, are great
travelers.

REMEDIES.

Where trees are found to have be-
come badly infested the safest and, in
the long run, the most economical course
will be to cut them down and burn
them, trunk and branch. Where the in-
festation is less marked, insecticide washes
and sprays may be used. The young
lice, before they have begun to secrete
scales (and at this time they can only be
discovered with the help of a magnifying
glass), may be destroyed by spraying
with kerosene soap emulsion. A formula
for this mixture follows:

Kerosene, gallons.....	2	—67 percent.
Common soap or white oil soap, pounds.....	1	—33 percent.
Water, gallons.....	10	

Heat the solution of soap and add it
boiling hot to the kerosene; churn the
mixture by means of a force pump and
spray nozzle for five or ten minutes. The
emulsion, if perfect, forms a cream which
thickens upon cooling, and should adhere
without oiliness to the surface of glass.
If the water from the soil is hard, or has



Fig. 5.—San Jose Scale: c. adult female contain-
ing young—greatly enlarged; d. an fringe of
scale—still more enlarged. (Original.)

a large percentage of lime, add a little
lye or bicarbonate of soda, or else use
rain water. For use against scale insects
dilute one part of the emulsion with nine
parts of cold water.

For the older scales, the washes may
be divided into those which can be used
in Summer without damage to the trees,
and those which are so strong that they
can only be applied during the Winter
season when the tree is dormant. None
of the Summer washes are perfectly
efficacious, and it is doubtful whether
any of them will prove of more benefit



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THE SEDGWICK BROS. CO., RICHMOND, IND.
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MIRROR ORGAN for \$45
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than the kerosene emulsion just men-
tioned. Owing to the fact that we have
had no Summer experience with this in-
sect in the East, we cannot state posi-
tively the strengths of certain washes
which may be used successfully without
damage to the trees during Summer.
In California, however, one of our agents,
Mr. D. W. Coquillett, has used with suc-
cess during the Summer a resin wash
which was made in the following pro-
portions:

Resin, pounds.....	20
Caustic soda (70 per cent. strength), pounds.....	5
Fish oil, pints.....	5
Water sufficient to make gallons.....	100

It is probable that this mixture will
not be too strong for Eastern trees, since,
in general, with other insecticides, the
climate of California seems to render
trees rather more susceptible to injury
than is the case in the East. For a
Winter wash the same ingredients may
be used in the following proportions:

Resin, pounds.....	30
Caustic soda (70 per cent. strength), pounds.....	5
Fish oil, pints.....	5
Water sufficient to make gallons.....	100

The most favored Winter remedy in
California, however, is the lime, salt, and
sulphur mixture. This is generally used
throughout the State by progressive fruit
growers. It consists of—

Unslaked lime, pounds.....	10
Sulphur,.....	5
Stock salt,.....	5
Water to make gallons.....	15

This wash will do great damage to the
trees if applied during the growing sea-
son, and should be used only in Winter.
All the sulphur and half the lime are
placed in a kettle and 8 1/2 gallons water
added, after which the contents of the
kettle are boiled briskly for about an
hour. The solution, which at first is
yellow from the sulphur, will turn very
dark brown, assuming more or less of a
reddish tint, and will finally change
from a thick batter to a thoroughly
liquid condition, the product being ordi-
nary sulphide of lime. All the sulphur
is added to the remaining five pounds of
lime and the latter slaked, after which
the slaked lime and salt are added to
the sulphide of lime already obtained,
the whole being then diluted with water
to make 15 gallons. This should be
strained before application, as it does
not form a perfect liquid solution, on
account of the considerable quantity of
undissolved lime, which will soon settle
to the bottom unless the solution is con-
stantly stirred while being sprayed.

In the experience of the Division in
California and Washington this solution
has not been as successful as could be
desired, but it has considerable popu-
larity among the fruit growers of Cali-
fornia.

Insecticide Apparatus.—For the mak-
ing of emulsions and the application of
insecticides a good force pump is essential.
The best apparatus for the making of an
emulsion is one of the small hand pumps
known as hydronets or aquapumps, which
are manufactured by all pump-makers,
the Johnson type being preferable. For
the application of sprays to trees either
the knapsack pumps for small trees and
young orchards and nursery stock, or the
larger cart or barrel pumps, will be
desirable. The aquapump or hydronet
can be obtained for about \$9 and the
knapsack pumps for about \$15. The
larger barrel and tank pumps, when
arranged ready for use, range in price
from \$25 to \$75, depending on the size
and complexity of the machinery.

A very satisfactory apparatus can be
made at much less cost by buying a
good force pump at a cost of \$9 to \$12,
and fixing it to a strong barrel or wooden
tank. All the pump manufacturers have
pumps that are adapted to this purpose,
and the cost of the apparatus by this
means will be limited practically to the
cost of the pumps, nozzles, and hose,
which should not exceed at the outside
\$15.

The nozzle in most general use is of
the Cyclone type, and is ordinarily styled
on the market the Vermorel nozzle.
This will prove very satisfactory, par-
ticularly for smaller trees, and is the one
commonly supplied with the knapsack
sprayers. The Nixon nozzle, which is a
very serviceable one, and particularly
advantageous for use with large trees.

HOW TO PREVENT THE SPREAD OF THE INSECT.

As we have shown in a previous para-
graph, the principal mode of spread is by
commerce in nursery stock, cuttings and
fruit. The time will come in the im-
mediate future when some kind of
quarantine regulations will have to be
established by States, or by large fruit-
growing districts. Should this species
already have obtained the firm foothold
in the East which we suspect, New York,
Michigan, and other States, in which the
pomological interests are great, should
immediately, by act of Legislature, estab-
lish quarantine regulations similar to
those in force at the present time in the
State of California. In the meantime no
orchardist should admit a single young
fruit tree, or a single cutting, or a single
bud, from a distance into his orchard,
without first carefully examining it and
satisfying himself absolutely that it does
not carry a single specimen of the San
Jose Scale. If this plan is adopted by
everyone interested, and without excep-
tion, the rate of spread of the species can
be limited to the natural spread by crawl-
ing, by winds, and by the aid of other
insects and birds.

We wish particularly to impress upon
the minds of fruit growers that as soon

The Gypsy Moth.

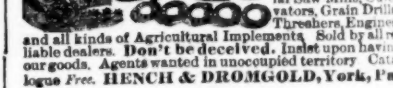
The Gypsy Moth Commission of
Massachusetts has published a report of
35 pages, with photographic views of
Swampscott, where the moth has been
destructive. After spending \$75,000 of
the \$100,000 appropriated last year, they
have succeeded in clearing a part of the
infested region. Another appropriation
will probably be granted. The two
most effective means of destruction are
found to be clearing the land and burn-
ing every living thing to starve them out,
or "a thorough, scientifically conducted
search for, and destruction of, eggs,
supplemented by burlapping and hand-
killing."

HENCH & DROMGOLD'S
ALL-STEEL FRAME
SPRING-TOOTH HARROW



TOOTH HOLDER EVER INVENTED. By its use the
tooth is held in position by a Hatchet
with which it can be drawn up to the
spoke of the point of the tooth. The largest Spring Tooth
Harrow made in the world. Over 3,000 sets in use.

Our New Steel Frame
CORN PLANTER



For simplicity, strength, and
durability, our Corn Planter is
unexcelled. It is made of
steel, and is the only one of
its kind in the world. It is
the only one that will plant
corn in the most perfect man-
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